Universität Zürich[UZH]

Analysis of prerequisite factors in the practices of teachers in inclusive education in primary schools.

A cross-national comparative study among a region of Italy and a canton of Switzerland

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by
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ABSTRACT

This thesis focuses on prerequisite factors in the practices of teachers within the context of inclusive education in primary schools. It presents a comparative study among a region of Italy and a canton of Switzerland that aimed to explore attitude about specific "roles and responsibilities" and the sense of self-efficacy of teachers with students identified in the Lombardy region and in the canton of Ticino.

Independently from the context in which they work (eg special or mainstreaming schools), teachers in their daily work should manage different work-related challenges and tasks, such as: understanding the difficulties of the child, settings the goals, accommodating the class, providing different instructions, dealing with colleagues and parents. These work-related tasks are also related to the sense of self-efficacy of the teachers, which in turns influences their practices. These areas frame the roles and responsibilities of the teachers and define their engagement and practice with their students.

In this comparative study, the researcher examined the correlation among selected factors relevant for teachers practice in the context of inclusive education in the Lombardy region and the canton of Ticino. The researcher correlated the attitudes of teachers about their roles and responsibilities regarding a specific child identified, and the general sense of self-efficacy of the teachers. Furthermore, it correlated the conceptualisation of disability with the process of programming. After examining the results data of 119 teachers, the statistical analysis concluded that there is a positive correlation between the variables studied. The correlation between attitudes about role and responsibilities and the general sense of self efficacy is stronger in the canton of Ticino than in the Lombardy region. In the canton of Ticino, the attitudes of teachers about their roles and responsibilities are more coherent with their sense of self-efficacy. On the other side, the correlation between the conceptualisation of disability and programming is stronger in the Lombardy region than in the canton of Ticino. In the Lombardy region the conceptualization of disability of teachers is more coherent with programming.

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DECLARATION

I declare that this thesis has been composed solely by myself and that it has not been submitted, in whole or in part, in any previous application for a degree or qualification of this or any other university. Except where states otherwise by reference or acknowledgment, the work presented is entirely my own.

GLOSSARY OF TERMS

BehiG - Bundesgesetzüber die Beseitigung von Benachteiligungenbehinderter Menschen. The Swiss Law on Equal Rights for persons with Disabilities established in 2004. It guaranteed the right to be educated for every student and promoted the integration of children in mainstreaming classes.

ICF - International Classification of Functioning, Disability and Health, is a framework for describing and organising information on functioning and disability published by the World Health Organisation (WHO, 2001). It provides a standard language and a conceptual basis for the definition and measurement of health and disability. It defines functioning and disability as multidimensional concepts relating to: the body functions and structures of people, the activities of people, their participation or involvement in all areas of life, and the environmental factor that affect these experiences.

IEP - Individual Educative Plan. An IEP is a tool that lays down the program of education instruction, provision, supports, services and goals a child needs in order to make progresses and succeed in school.

IPST – Individualised pedagogical support teacher. In the canton of Ticino children with disability may attend the ordinary classes with the support of individualised pedagogical support teachers. IPSTs work in a one to one relationship with the child, they have a fixed number of hours and have a complementary role with respect to the class teacher. IPSTs work to adapt the curriculum and different materials, conforming them to the resources and the individual needs of the student.

MIUR - The Italian Ministry of Education, University and Research. MIUR is responsible for the administration of the central education system in Italy.

OECD - Organisation for Economic Co-operation and Development. It's an intergovernmental economic organisation with 36 member countries with the mission of promoting policies that will improve the economic and social well-being.

PST - Pedagogical support teachers. In the canton of Ticino children with disability may attend the ordinary classes with the support in the class of pedagogical support teachers. Support teachers provide educational support for students identified as having high functioning profile. Those teachers usually work in schools with multiple situations of identified-high-functioning-profile-students and also plan preventive interventions.

SEN - Special Educational Needs. The term is used to describe disabilities or learning difficulties that make it harder for a child to learn, as compared to the majority of children of the same age. Children with Special Educational Needs may require additional or different provision and support in school, namely special educational provision.

ST- support teachers. In Italy every class having students with disabilities has one or more support teachers. Support teachers are part of the team of teachers of the classes and work to support and facilitate all inclusion processes of children with disability or SEN.

WHO – World Health Organisation.

CHAPTER 1: PREREQUISITE FACTORS RELEVANT FOR TEACHERS' PRACTICE IN THE CONTEXT OF INCLUSIVE EDUCATION

1.1 INTRODUCTION

This thesis focuses on prerequisite factors in the practices of teachers within the context of inclusive education in primary schools. It presents a comparative study among a region of Italy and a canton of Switzerland that aimed to explore attitude about specific "roles and responsibilities" and the sense of self-efficacy of teachers with students identified in the Lombardy region and in the canton of Ticino.

The reason for focusing on the practices of teachers in the context of inclusive education came from the understanding and knowledge of the ICF, International Classification of Functioning, Disability and Health (WHO, 2001), and the version for children and youth, ICF-CY (WHO, 2007) and its impact in education (Moretti, Alves, & Maxwell, 2012).

The ICF promoted a biopsychosocial model of disability. The biopsychosocial model focuses on the impact of the environment and contextual factors on the functioning of the individual. Disability is not conceptualised as a condition that belongs to the person but rather a human condition that everyone can experience during the course of their entire life. Disability is complex, dynamic, multidimensional, and contested (WHO, 2001, 2007). The context of a person has a relevant impact on the experience of disability by creating barriers or facilitators to participation.

Given the nationality of the researcher (Italian), and the place where she used to live (Switzerland), the researcher started to focus on the impact that different contextual factors have on the education system. Teachers are part of the context and are the most relevant factors having an impact on the process of learning of every student. Teachers have a major role in meeting the educational needs of students with disabilities (OECD, 2005b).

Independently from the context in which they work (eg special or mainstreaming schools), teachers in their daily work should manage different work-related challenges and tasks, such as: understanding the difficulties of the child, settings the goals, accommodating the class, providing different instructions, dealing with colleagues and parents. These work-related tasks are also related to the sense of self-efficacy of the teachers, which in turns influences their

practices. These areas frame the roles and responsibilities of the teachers and define their engagement and practice with their students.

The different way in which teachers respond to the diversity of the students drove the researcher to reflect on the attitude of the teachers to their roles and responsibilities, and their sense of self-efficacy.

As a result, the researcher selected from the literature (Engeström, 2001, 2008; Jordan, Schwartz, & McGhie-Richmond, 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998; Tschannen-Moran & Woolfolk Hoy, 2001) some relevant factors having an impact in the daily work of teachers and tested how they are represented in the two areas of the study: the Lombardy region and the canton of Ticino.

Italy and Switzerland generally present different school systems for children requiring additional support. In Italy, the support for children with special educational needs (SEN) is mostly provided in mainstreaming settings. Apparently, there is just one way to implement inclusive education: in regular classes with the support of support teachers. The canton of Switzerland selected for this study, on the other side, implements inclusive education in different forms.

The researcher with this study aims to:

- Investigate the relationship between the attitude of the teachers to their roles and responsibilities with regard to children with disability, and their sense of self-efficacy;
- Investigate the correlation between the conceptualisation of disability for the teachers, and some of the task related to the work of programming: in particular goal setting and monitoring, class adaptation and teaching techniques;
- Compare the findings in the Lombardy region and the canton of Ticino in order to understand the potential impact of context characteristics.

In order to clarify the concepts of the study, the researcher formulated the following research questions:

RQ1. Is there a relationship between the sense of self-efficacy of the teachers and their attitude about their roles and responsibilities in working with students with disability?

- How do teachers consider their attitudes to roles and responsibilities with their students with disability?
- How do teachers perceive their sense of self-efficacy?

RQ2. Is there a relationship between the conceptualisation of disability and programming of the teachers?

- How do teachers conceptualise the disability of the identified child?
- What teachers do in order to adapt the context to the needs of the students? Eg how do the teachers adapt goal setting, class accommodation, differentiated instructions?

RQ3. What are the similarities and differences between the Lombardy region and the canton of Ticino?

The choice of a comparative study was related to the attempt of exploring the potential impact of contextual factors in the areas investigated. The choice of the two areas of the study was based on two main reasons (not listed here in order of importance): the first was a practical reason, related to the two regions sharing a common language, which is incidentally also the native language of the researcher. The second was related to the different school systems in the two areas: from a policies perspective, Italy is a country where decisions are mostly established at national level, while in Switzerland, the main responsibility for education lies with the cantons. Furthermore, in Italy, apparently, there is not a systemic division between students with disability and those not requiring additional support. The question that arises is: are teachers prepared to respond to student diversity? Switzerland on the contrary has a long tradition of students with disability following the track of special schooling. There is apparently low permeability, so that it may be difficult for a child, once "identified", to move back to the regular track. The canton of Ticino presents a different situation as inclusive education represents an important principle in its education system.

The Lombardy region and the canton of Ticino are therefore interesting to compare because they have some similarities. As described above, they both follow an inclusive system.

There are therefore considerable differences and similarities which make the comparison challenging and at the same time interesting.

The purpose of the study was therefore to explore a variety of theoretically derived variables (Engeström, 2001, 2008; Jordan et al., 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998; Tschannen-Moran & Woolfolk Hoy, 2001, 2007) which may predict the practices of the teachers in inclusive education.

1.2 STRUCTURE OF THE THESIS

This thesis consists of five chapter.

Chapter one presents a review of the literature. It provides the theoretical framework for understanding the concepts of the study. The chapter is organised according to the different areas investigated in the study. The chapter begins with a specific focus on inclusive education: issues and challenges. The first paragraph focuses on the complexity of challenges and tasks teachers face in their daily work with children with special needs in inclusive contexts. The second paragraph explores the complexity of teaching diagnostic processes. The third paragraph focuses on the work task of programming. Finally, the fourth section explores the construct of self-efficacy.

Chapter two explains the context of the study, firstly describing the Lombardy region and secondly the canton of Ticino. The chapter presents the approach to inclusive education and contextual information about the system: how it is organised, the policy framework, the teaching staff working to support students with SEN. The contents are structured into the three dilemmas: the identification dilemma, the curriculum dilemma, and the location dilemma (Norwich, 2008a, 2008b, 2009, 2010).

Chapter three focuses on the design and methodology of the study. It explains the research design and the research questions, the research tools, the data collection, the research ethics, the participants, and the data analysis.

Chapter 4 presents the findings of the study. The first paragraph presents the finding from RQ1 in the Lombardy region. The second paragraph presents the finding from RQ1 in the canton of Ticino.
Findings from RQ2 are presented in the two areas of the study in paragraph third and fourth.
The last paragraph presents a cross national analysis of similarities and differences between the two sample areas.

Chapter 5 focuses on the conclusions and discussion.
The chapter discusses the outcomes of the study by answering the research questions. Additionally, it presents the limits and suggestions for further research, and the contributions to knowledge.

1.3 THE CHALLENGE OF INCLUSIVE EDUCATION

Schools create human and social capital; economists have recognized that good schools are important for the future social, economic, civic and cultural development of nation (Ravich, 2010). Many countries are trying to improve their education systems in order to meet the social, cultural and economic demands. One of the roles of the educational agency and policy today in most western society is the transfer of the necessary knowledge, skills, and means for young people to take their places as effective, capable and active citizens in the society.

Education systems assume as a main and common goal the future participation of the children in all the possible life spheres: social, cultural, etc. However, the challenge lies in the determination of the way in which these requirements should be met for students with disability or Special Educational Needs.

Whether in general education Pedagogy (ie how to teach) and Curriculum (ie what to teach) are well understood and detailed, in the case of education for children with SEN, this is still a debated issue. Children with difficulties in learning may be at risk for not receiving an adequate and individualised education. According to Rouse (2008), realising 'schools for all' is important because schooling is strictly related to human, economic and social development, therefore he claims that schools not capable of ensuring education for all children may create an educational, social and economic underclass which has serious impact for the actual and future society. Do education systems today guarantee the right to education (access) and rights in education (equity) (Florian, 2008)? Access to special support may depend on categories or medical information. Diversity in school population is increased due to linguistic, cultural, socio-economic and ethnic differences. Furthermore, the number or children identified as requiring special support is increasing worldwide, and therefore receiving heightened attention in many countries. Nevertheless, not all the children identified are entitled to special support.

During the past thirty years a relevant international political work has been done in order to provide a more democratic - in terms of quality - basic education for all. Being given the same opportunities as others may require some form of additional support.

Many governments and international bodies are worldwide promoting the right to be educated in mainstreaming classes. The implementation of inclusive education may create some challenges and dilemmas: the assessment of the difficulties, the location of the support, the content taught (Norwich, 2008a, 2008b, 2009, 2010). Feuser (2012b) claimed that one of the numerous dilemmas identified in the discourse on inclusion is the confusion about severe-low disability and the location of the support and the adaptation of the curricula.

International bodies and governments have been reinforcing the principles established by the UNESCO's 'Salamanca Statement' (1994). Inclusion may be considered the result of a change in policies, recommendations, declarations, conventions and practices in the last thirty years, culminating in the United Nations Convention on the Rights of Persons with Disabilities (2006) and the Dakar framework for action (UNESCO, 2000).

The UNESCO Policy Guidelines on Inclusion in Education (2009) states that education agencies have the responsibility to ensure the right to education and handle diversity through different actions: flexible teaching and learning methods adapted to meet different educational needs and learning styles; flexible curriculum responsive to children diversity.

Whether there is a common agreement on the importance of education, when it comes to "Inclusive Education systems", as required in the Article 24 of the United Nations Convention on the Rights of Persons with Disabilities (2006), is still being debated internationally. Inclusion is a complex phenomenon which requires a major change in the whole system; from the macro levels of policy to the meso levels of classrooms and the micro levels of professionals. The way of interpreting inclusive practices varies across countries; different states have diverse ways of facing this issue. According to Arnesen, Allen, and Simonsen (2009), the field of special education has changed, and provision for disabled students has shifted from integration (placement within mainstreaming setting) to inclusion (which puts some expectation on the schools to modify their practices to accommodate the needs of the students). According to Feuser (2012b) a relevant issue in implementing inclusive education lies between didactic issue and political issue.

Norwich (2010) identifies three dilemmas faced in attempting to implement inclusive education in practice. They are the "identification dilemma", the "curriculum dilemma" and the "location dilemma":

1. Whether and *how to identify children* with significant difficulties in learning as having SEN/disabilities – or not: the 'identification' dilemma;
2. Whether children with SEN/disabilities should *learn the same common curriculum* content as other children without SEN/disabilities or not: the 'curriculum' dilemma;
3. Whether and to what extent children with more severe SEN/disabilities should *learn in ordinary classrooms* or not: the 'location' dilemma. (Norwich, 2008a, p. 57)

The dilemmas embrace three issues relevant for implementing inclusive education in the practice: identification, setting, curriculum.

The main purposes of identification and assessment of student with disabilities are to determine whether they are eligible for special educational services and, if they are eligible, to determine what those goals and related support and location will be. The needs identified during the assessment may have an impact upon student's educational goals, the services that will be provided, and the method to evaluate progress toward the performance of the students versus the planned goals. When students are not appropriately identified, and the individualised program does not meet their needs, the individual loss of achievement could be considerable.

The needs diagnosed in the identification process may determine the educational setting and may influence the contents of said education. Most of all, the diagnosis may influence the conceptualisation, by the teachers, of the needs and difficulties of the child, and can influence attitudes about the roles and responsibilities of the teachers to the child. The identification process varies across countries, and in the same country every local centre has its own way of labelling the child; rates of identification vary widely across each service.

The cross-national study done by the OECD (2005a) to improve the comparability of national educational statistics and data on children with disabilities, difficulties and disadvantages, demonstrated the difficulty of comparing categories. Categories and labels are indicators of the systems, the professionals, the financial framework, but they do not provide relevant information about the educational needs or the functioning profile of children labelled in a specific group. Furthermore, disability categories are arduous to compare among different countries; they can be difficult to understand if taken out of context.

For instance, Black-Hawkins, Florian, and Rouse (2007) report that rates of identification and patterns of provision vastly vary across England: schools and local services have their own way of defining special needs and provide the adequate support.

Educational policies determine therefore which child receives additional resources. National, federal and local funding of special education programs and supports may be based on labels and categories of disabilities; identification may be related with categorisation. In Italy for example, a student is identified as requiring special education support when local services associate the child with a specific disability category or label. Students have to meet eligibility criteria in order to be entitled to special education services.

Functioning profiles are more relevant in education than labels. Switzerland has been one of the first countries to adopt a multidimensional, context-based eligibility procedure based on the ICF (Hollenweger & Moretti, 2012; WHO, 2001).

In countries that follow the track of special schooling the inconsistency of diagnostic may lead to an overrepresentation of minorities in special education classes, where personal and contextual factors may play a relevant role in the identification process. On the other side, in countries that follow the track of inclusive education, the diagnosis may not be coherent with the effective educational needs a child requires, as relevant information, such as the functioning profile, are missing.

This complex issue launches the debate on who requires additional support, and why.

Educational policies and practices determine therefore which child receives additional resources to ensure their full participation in school and in the social life. Identification has a major impact upon the location and the curriculum dilemma. In Italy for example the needs identified during the assessment process play a major role in the IEP. Education system may use disability categories to claim more right as well as to guide educational practice and those related goals. When students are not appropriately identified, Individual Educative Plan may fail in meeting the needs of the child.

The meaning of categories can be properly understood analysing their application at different levels of education system. For example, learning disability:

> (1) Learning disability is defined as a condition that cause problems in the learning process (clinical perspective);
>
> (2) Student confirmed as having learning disability need program adapted for learning disabled (educational perspective, IEP);
>
> (3) Program for learning disabled are provided by specialist in this area (organisational perspective);
>
> (4) Specialist and program for learning disabled are made available (policy perspective). (Hollenweger, 2008, p. 16).

But what happens if a child with learning disability has relational problems with the class peers, and this problem has an impact in their school performance? Despite the adapted curricula the child may continue to have problems in school, teachers may focus on the learning problems without considering and planning an intervention for the relational problem. A tension often arises between the identification, assessment and consequently support provided and, on the other side, the individualised curricula designed. The process of labelling

apparently enables different professionals to "easily" communicate with one another because each label traces a general understanding of the problem. On the other side, does assigning a student a category imply a deep knowledge about the characteristics of the functioning of the student and the related intervention? Do teachers go beyond medical information in their work?

Today, legislative and policy efforts seem to be substantial and consistent in promoting inclusive education (*location dilemma*). Not long time ago in different countries children with special needs and disability tended to be enrolled in special schools, whereas today there is a general moving toward inclusive education. Many European countries in the past thirty years have been actively promoting legislation and policies with the aim of including children with disability in mainstreaming classes. Despite this general trend, the real issue lies on the implementation of the general concept, and especially in how the teachers put this into practice. Whether policies for inclusive education are well developed in several countries, tackling inclusive education at classroom level is still an on-going and debated issue. Even if policies promoted class diversification and inclusion of children with SEN in the ordinary setting in fact, the challenge would still be on how to face this new process at educational level. Just an inclusive practice established at policy level is not enough, as many times it is the teacher who is expected to translate policies into classroom settings. Despite the Programme for International Student Assessment (OECD, 2010) proved that equality in education and high student outcomes can be possible at the same time, a tension still arises between the inclusion of some children and the achievement of all (Black-Hawkins et al., 2007).

According to Hansen (2012), for some teacher inclusive education it is not the adequate solution for meeting the specific needs of children with SEN. Those teachers believe that including children with disability in mainstreaming classes may have some negative consequences in their learning and development process. Kauffman, McGee, and Brigham (2004) argued that inclusive setting may not be the best solution for students requiring individualised programs; according to them, a self-contained environment best meets the needs of those students. Based on results retrieved from different studies, they considered that perhaps differentiated instructions can be best provided in a self-contained setting. Therefore, they recognise self-contained classrooms as a viable alternative to mainstreaming setting. Self-contained classrooms can be "superior" to inclusive classrooms (Kauffmann, Bantz, & McCullough, 2002).

If the aim of education is to form active citizens, do special classes create social differences through the limitations of social interaction between peers? According to Simeonsson, Carlson, Huntington, McMillen, and Brent (2002), schools are a primary environment both for the education and socialisation of children.

Whereas inclusive schools have to promote a way of teaching that meet and respond to individual difference, teachers on the other side have therefore to be prepared to engage with different learner diversity. As a result of these pressures, the work of general and special education classrooms teachers is more challenging.

1.4 VARIABLES OF THE STUDY: FACTORS THAT MAY HAVE AN IMPACT ON THE PRACTICE OF TEACHERS IN INCLUSIVE EDUCATION. A LITERATURE REVIEW

1.4.1 How do teachers consider their attitude about roles and responsibilities to students with disability?

This section reviews the literature to explore the complexity of work tasks for teachers in the practice. The contents provide the theoretical framework for the first research questions:

> "Is there a relationship between the sense of self-efficacy of the teachers and their attitude about their roles and responsibilities in working with students with disability?
>
> - How do teachers consider their attitudes to roles and responsibilities with their students with disability?
> - How do teachers perceive their sense of self-efficacy?"

This thesis was built upon the premise that teachers and their way of teaching are more effective for the students than any other factors, such as class composition and size, their background, etc. Thus, the researcher decided to focus on how teachers consider their attitudes about roles and responsibilities to students with disability included in their classes.

It is not easy to be a teacher these days, demands and expectations on schools and the role of the teachers have become more and more complex (Hollenweger, 2011b). Education systems today have to deal with a demanding variation in student learning and therefore are seeking to respond effectively to the needs of every learner.

The OECD report “Teacher Matter” (2005b) recognises that in the actual scenario, the demands on schools and teachers are becoming more complex. The report is based on a comparative research study among 25 countries investigating different areas: effective teachers, innovative and successful policies and practices, and priorities in the agenda for future work. Among all the variables and resource to consider, teachers are recognised to be the most meaningful:

> As the most significant and costly resource in schools, teachers are central to school improvement efforts. Improving the efficiency and equity of schooling depends, in large measure, on ensuring that competent people want to work as teachers, that their teaching is of high quality, and that all students have access to high quality teaching. (OECD, 2005b, p.1).

Teachers and teaching are the most relevant factors having an impact on student learning and in particular “teacher quality” is the most relevant variable influencing student achievement (OECD, 2005b). Obviously, teachers make the difference.

Are teachers prepared to address the needs of their students? The European Commission in 2007 published a communication entitled "Improving the Quality of Teacher Education". The aim was to ensure that training and professional development of education for teachers are adequately endorsed in different countries. The general goal was therefore to guarantee that teachers possess the necessary knowledge, expertise, attitudes and skills that they require to be effective in their work with students. The document attempts to support the professionalisation of teaching, and to promote the status and recognition of the teacher profession. Nonetheless, according to Hattie (2012), improving teacher education does not have a direct impact on the quality of teaching.

Teaching is a complex art and is not an exact science. A study conducted by Hedderich (2015), focusing on the health of teachers in inclusive education, showed that according to the perspective of teachers, contextual factors have an impact on stress and coping strategies. Example of contextual factors are: the amount of work, work organisation, work conditions, and finally team interaction.

The challenge of education is to provide adequate and individualised Pedagogy -how to teach- and Curriculum - what to teach-, for different students in heterogeneous classes.

How can teachers and special education teachers address the needs of every child in the class? Can teachers teach the class as a whole or do they need a more individualised teaching approach? Effective teaching lead to effective interventions for all students (Jordan, Schwartz,

& McGhie-Richmond, 2009). The effectiveness and the quality of education is strictly related to teachers. Teachers and teaching related factors are the most important variable having an impact in student learning (Rivkin, Hanushek, & Kain, 2005).

Historically, students with disability or SEN were not included in mainstreaming classes. Children were taught in separate setting and therefore teachers worked in "isolation". The decision of including "untypical" students in mainstreaming classes has brought some dilemma on the way in which teachers and special education teachers work together to combine their professional knowledge, expertise, and skills. Theoretically, in a collaborative and cooperative setting, teachers are required to work together to strengthen learning opportunities for children. Florian (2008) pointed out that inclusive practice is more than differentiation. It involves an understanding of the interaction between socio-cultural factors that may produce individual differences (biology, culture, family, school). Teaching heterogeneous classes is a challenge. Teachers should understand how to sort out the relative contribution of each of these factors in determining special needs and provide appropriate responses when children experience difficulty. Teachers are also committed to not simply help students to turn data into information and information into knowledge, but they also have to support students in transferring their knowledge to life. Hedderich (2016a) pointed that diversity in school can be derived also from migrant-children having a disability. The understanding of the dynamic interaction between the factors that may produce individual differences (Florian, 2008) may be challenging for these children. The area of migrant children with disability attending school should therefore being investigated by the scientific research in education, Hedderich (2016a).

Providing education means believing in the abilities and capabilities of the child. The believe that every student has a "zone of proximal development" (Vygotsky, 1978) and is capable of achieving accomplishment at school and do the best to find ways of making each student a success is a relevant factor, having an impact in effective teaching. Students develop at different rates, and in every classroom there are a range of different student abilities and performances. Effective teaching means also adapting and individualising the learning contents and the means in order to accommodate the different needs of the students in a class. A pioneer of the pedagogy like Maria Montessori based her approach on a child-centred method stressing the importance of adapting the learning environment to the development level of the child. Montessori considered the children the masters of the school environment; and the environment has to meet some criteria: it has to be specifically prepared for them to be a comfortable didactic means and has to encourage independence and responsibility.

Teachers have an important role in preparing students to take their place in society. The main question generally asked is "What qualifications are needed for a teacher to be effective in their work?". The researcher prefers to focus on: "What knowledge, expertise and skills are needed for teachers to be effective in their work?".

A comprehensive and cross-cultural list and definition of these knowledge and expertise would be too difficult (or nearly impossible) to achieve, given the complexity of the role of teachers and the tasks to accomplish.

The European Council on improving the quality of teacher education (European Commission, 2007), agreed that teachers should:

- Possess pedagogical skills as well as specialist knowledge of their subjects;
- Have access to effective early career support programmes at the start of their career;
- Have sufficient incentives throughout their careers to review their learning needs and acquire new knowledge, skills and competence;
- Be able to teach key competences and to teach effectively in heterogeneous classes;
- Engage in reflective practice and research;
- Be autonomous learners in their own career-long professional development.

(European Agency, 2010, p. 13).

Hattie (2012) from a literature review identified five dimensions that should characterise expert teachers:

a. Expert teachers can identify the most important ways in which represent the subject they teach;
b. Expert teachers are proficient at creating an optimal classroom climate for learning;
c. Expert teachers monitor learning and provide feedback;
d. Expert teachers believe that all students can reach the success criteria;
e. Expert teachers influence surface and deep student outcome.

(Hattie, 2012, pp. 28-32)

According to Blömeke, Felbrich, Müller, Kaiser, and Lehmann (2008), what teachers require for acting successfully in their job is called "professional competence". The cognitive components of professional competences, known as declarative knowledge, is based on a three-dimensional component: content knowledge, pedagogical content knowledge and general pedagogical knowledge (Hollenweger, 2011b). In their daily work, teachers have to

combine these three dimensions according to the specific requirement demands in a specific class setting (Blömeke et al., 2008).

According to Hollenweger (2011b), in order to reach a high level of "professional performance competence" teachers need to successfully combine declarative knowledge (knowing that), procedural knowledge (knowing how) and meta-cognitive knowledge (knowing why).

Blömeke et al. (2008) consider procedural knowledge (knowing how) as a type of knowledge, "relevant to action". Procedural knowledge is defined as "situated knowledge" or "situation specific knowing how". According to them, the three dimensions flow into each other because:

> declarative knowledge is transformed into procedural knowledge through experience. It is a special feature of the teaching profession that declarative knowledge of several areas— content knowledge, pedagogical content knowledge, and general pedagogical knowledge—needs to be combined and restructured in order to become procedural knowledge. (Blömeke et al., 2008, p. 721).

Furthermore, they consider beliefs as a relevant component of professional competence, since it connects "knowledge" and "acting". According to Hattie (2012), teacher beliefs and commitment are important influence factors on student achievement, over which is difficult to have control.

Despite the collaboration among different professionals has been a relevant topic in special and inclusive education, sharing instructions between special education teachers and general education teachers working in the same inclusive class is a relatively recent issue (Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010). A big challenge in school today is sharing a role that has traditionally been individual. Historically, students with disability or SEN were not included in mainstreaming classes. Children were taught in separate settings, and therefore teachers and special education teachers worked in "isolation". Inclusive education brings special education teachers in mainstreaming classes to work cooperatively with regular teachers with different form of collaboration. Although many inclusive education policies promote the collaboration and cooperation among teachers and special education teachers, the real issues lie in the implementation.

The decision of including students with special needs in mainstreaming classes has therefore brought some dilemma on the way in which teachers and special education teachers work together to combine their professional knowledge, expertise, skills and personal characteristics. General education teachers are apparently expected to teach students with a

broader range of learning capability and therefore need to differentiate instructions. Special education teachers usually work in a smaller class size and therefore adopt a more individualised teaching approach. The role of teachers and special education teachers need therefore to be adapted to the actual scenario: both have to be skilled not only for inclusive education, but also for collaboration. This means that general education teachers and special education teachers have to work cooperatively, eg to share instructions in the class or to develop an IEP.

Are teachers prepared to cooperate and collaborate? Training in collaboration has definitely a positive impact in the competences required for cooperation. Teachers attitude on inclusive education and on collaboration has very much to do with teacher preparation. However, is teacher preparation the major variable having an impact in being effective in the context of inclusive education and in collaboration? Collaborative work requires the definition of different prerequisite factors at different level. Hernandez (2013), in his attempt to define collaboration, considers that two factors influence collaboration and cooperation: interpersonal characteristic and contextual setting and construct. Teachers cannot be responsible alone for overcoming contextual barriers in cooperation and transfer of information. There are some issues that need to be accomplish at meso and organisational level. Example of those are the lack of common planning time, larger class size, unclear roles and responsibilities among teachers and special education teachers, lack of space where they can communicate and plan. On the other side, despite in his research Scruggs, Mastropieri, and McDuffie (2007) found that co-teachers consider personal compatibility to be the most relevant factor having an impact in co-teaching, there are many factors that teachers can control. Professional competences go beyond personal factors; teachers in their everyday work have to develop a wider spectrum of collaboration skills that further cooperative planning and instructional activities in their practices.

The development, acquisition and maintenance of skills needed to collaborate depend upon several factors. These factors include the attitudes teachers have on collaboration, their interpersonal skills, the training they received, their professional expertise and the school context (Hernandez, 2013). Collaboration and communication among teachers and special education teachers may belong to a middle level sphere named hidden curriculum (Engeström, 2008): that is, an unwritten, unofficial way of proceeding, such as how teachers should interact with each other or with students.

There are formal and informal forms of collaboration and cooperation, such as formal meeting or informal exchanges between teacher and special education teacher, for example during their break, or when they meet by chance.

Daniels, Edwards, Engeström, Gallagher, and Ludvigsen (2009) define cooperation as an:

> interaction in which the actors focus on a shared problem, trying to find mutually acceptable ways to conceptualize and solve it. The participants go beyond the confines of the given script without explicitly questioning or reconceptualising the script. (Daniels et al., 2009, p. 57)

While they define communication as a: "reflective interaction in which the actors focus on reconceptualising their own organization and interaction in relation to their shared objects. Both the objects and the scripts are reconceptualised as well as the interaction between the participants." (Daniels et al., 2009, p. 57).

McCarthy, Brennan, and Vecchiarello (2011) in their attempt to define a model for enforcing the communication among teachers and parents, considered that form of collaboration between schools and parents have to move from logistical relationship to communicative relationship. The quality of communication has therefore to evolve from cooperation to collaboration where both sides share a partnership. The concept of moving from a logistical communication to a communicative relationship can be easily applicable to teachers and special education teachers and their way of communicate and cooperate. Do teachers exchange relevant information about the child and build a cooperative planning? What does communication mean in school?

When teachers and special education teachers effectively cooperate and communicate, they are more likely to consider their team-partner as a source of support and knowledge.

When the members are talented but fail to combine their abilities together, unproductive conflicts can be generated. Certainly, the richness of a team is the diversity among professionals, every person brings different views, perspectives, and solutions to the group. On the other hand, the heterogeneity of the members can affect the group performance. A team has to be able to combine the roles and responsibilities of their members in the right way. A prerequisite for working effectively together is the recognition of the importance of the role of every team members.

Learning to communicate is a prerequisite factor for learning how to teach. In this thesis, we aim to investigate whether teachers and special education teachers working in the same team

exchange information and knowledge related to the child and communicate to plan common interventions.

A prerequisite factor for working cooperatively and collaboratively is communication. Communication requires commitment by the teachers, who have to share a plan, and transfer relevant information and knowledge related to the student. In this thesis we aim to investigate whether teachers plan together and if they transfer to each other relevant child-information, necessary to plan interventions.

Communication is therefore a complex process. According to Prozesky (2000), communication is a skill; in order to improving our skills, we need to get a feedback on the way we perform our skills.

The hard part of team-working is to make sure that everyone shares the same plan before moving into practices. Enforcing team-agreement, communication and collaboration is a valuable way of getting a team started. Communicating is an important variable influencing a successful team-working and is considered a facilitating factor in helping teams in working effectively together.

Collaboration and cooperation are factors having a direct impact in school climate. According to Cohen, McCabe, Michelli, and Pickeral (2009), despite the non-existence of a universal shared definition of school climate, they consider school climate as the quality and character of school life. School climate is based on patterns of how people experience school life. These patterns refer to norms, goals, values, interpersonal relationships, organisational structures and include also teaching and learning practices. School climate includes also the quality of the relationships between staff and between staff and students, and the levels of cooperation, transferring information and sharing that are thereby present.

An important indicator of school climate in "Talis" acronym of "Teaching and Learning International Survey" (OECD, 2013), is the quality of the relationship among teachers and students. "Talis" survey (OECD, 2013) highlights that the majority of principals report that in their schools staff have open discussions about difficulties, respect for the ideas of their colleagues and a culture of sharing success. The survey report demonstrates that an average of 98% principals across all the countries included in the study, report good relation between teachers and student.

Based on the literature reviews, the researcher selected a variety of theoretically derived variables (Jordan et al., 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998) which may predict teacher practices in inclusive education. The project has its rationale in the model

of "*teacher characteristics for effective inclusion*" (Figure 1) developed by Jordan et al. (2009).

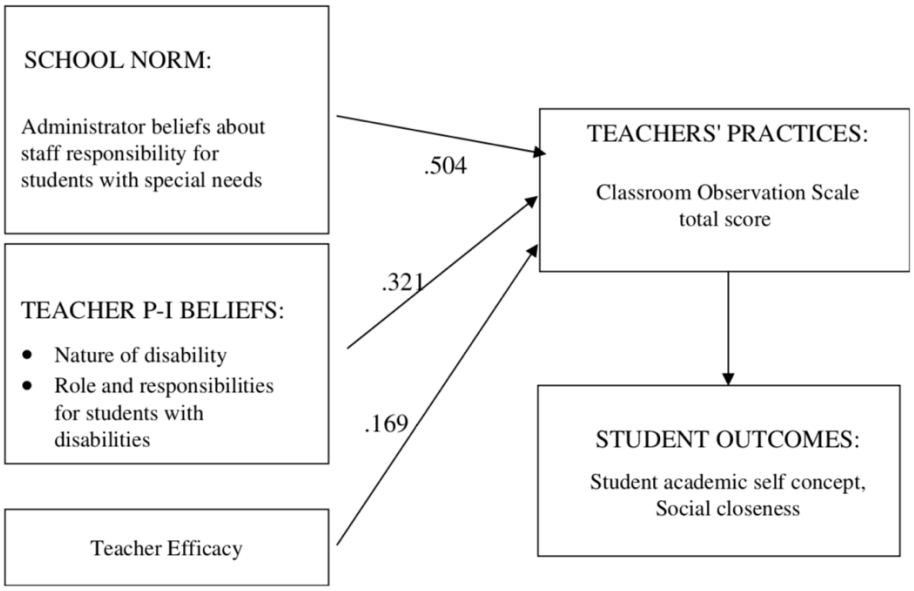

Figure 1: Elements of the model of teacher characteristics for effective inclusion

Jordan et al. (2009) argued that effective teaching is effective intervention for all students. The Model claims that school norms about inclusive education, the beliefs of teachers about their role and responsibilities in including children with special needs, and their sense of teaching efficacy, predict teacher practice, which in turn have an impact upon student outcomes. The Model has been applied in the "Supporting Effective Teaching (SET)" research project, with the aim of investigate factors having an influence in effective teaching in inclusive primary schools. Two of the components of the Model: "Teacher Pathognomonic–Interventionist beliefs", and "Teacher Efficacy", have been adopted as a basis for the study-rationale. The component "Norm" has been partially applied to one of the objects investigated: "Programming". Based on the research done (Jordan et al., 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998), the researcher decided to focus on how teachers consider their attitudes about roles and responsibilities considering the following working areas:

- Assessment and understanding of disability;
- Programming;
- Goals and objectives;
- Class Organization;

- Teaching techniques;
- Communicating with staff;
- Communicating with parents.

In addition, the researcher investigated teachers and special education teachers sense of self-efficacy. Further explanation of the theoretical background and the variables will be discussed in the following paragraphs.

1.4.2 What difference makes a difference? Teachers understanding of disability

This section reviews the literature to explore the complexity of teaching and SET diagnostic process. It provides the theoretical framework for the second research question:

> "Is there a relationship between the conceptualisation of disability and programming of the teachers?
>
> - How do teachers conceptualise the disability of the identified child?
> - What teachers do in order to adapt the context to the needs of the students? Eg how do the teachers adapt goal setting, class accommodation, differentiated instructions?"

> While impairments create realities that people have to learn to live with, "disability" is a social construct and relative to expectations, attitudes and beliefs as well as physical and social characteristics of the environment. Whether a child is identified as having a disability depends on legislation and policies, the availability of services, financing mechanisms as well as specific diagnostic or eligibility criteria. Disability, therefore, is always defined in the specific social context in which it is used. (Hollenweger, 2014, p. 251)

There are some students identified as having "different needs" that call for "different support". Teachers have huge problems with diagnosing student achievement and capability accurately. As Hollenweger (2011b) claims, the fact that teachers face difficulties in judging student

achievement, should be understood as an indicator of the complexity of professional knowledge, and not merely related to negative attitudes toward some students.

The lack of clarity concerning the different types of factors having an impact upon the learning process of the child, may make it problematic to have an understanding of the functioning profile of the students, and therefore to turn the functioning profile into goals, with the aim of planning an adequate intervention. The judgement of the teacher and their understanding of the difficulties and capabilities of students, especially on which characteristics are stable and which are changeable, influence their practice.

A relevant question to address today in education is the following: which information and knowledge related to disability guide the practices of teachers? Teachers and special education teachers may think differently about the nature of the problem of learning difficulties and the responses and solutions that they provide when students encounter problems in learning. A conceptualisation of the type of knowledge related to disability that teachers and special education teachers adopt may be helpful in understanding how they use such information and knowledge to organise their work in practice.

Hollenweger (2011b) points out that the capacity to assess student achievement and behaviour is the results of a complex interaction between different factors. Teachers are asked to adequately assess different aspects of student learning or characteristics, but they also need to consider different aspects related to subject matter or task difficulty and to the context.

Diagnostic teaching is a process involving different competences: diagnose student abilities and difficulties, identify their needs and goal, and provide the adequate learning context. Teachers should be able to recognise the importance of the various components of the learning process and identify and use assessment and individualised instruction to support the development of these components.

When it comes to special education and disability or SEN, the assessment by the teachers of student achievement, capacity and difficulties, may be strictly correlated to medical information, provided by medical professionals. It is very important to know if teachers go beyond labels when they make a judgment of the difficulty and capability and their students; this may have a strong implication in practice, when setting goals and varying instructional strategies, as well as in the sense of self-efficacy of teachers.

Some studies (Jordan, Lindsay, & Stanovich, 1997; Jordan & Stanovich, 2001) indicate that differences in the behaviour of teachers toward certain groups of students may be influenced by the beliefs of individual teachers and their attitude about students with disabilities and their responsibilities in accommodating the special needs of those students. Based from the results

drawn from their Supporting Effective Teaching (SET) research programme, Jordan et al. (2009) stated that an effective inclusive practice and therefore effective teaching, partly depends from the beliefs of teachers toward the nature of disability, and consequently upon their belief in their role and responsibilities in working with students. According to them, the relationship between inclusive practice and effective teaching may partly depend on the underlying epistemological beliefs about the nature of ability and disability, of knowing, knowledge and the process of acquiring knowledge of students. All these issues have a direct impact on the relationship between teaching and learning.

Teachers may think that the difficulties a child faces in school are strictly and mainly related to health and medical problems. Teachers with this perspective may consider their role as marginal to the learning process of their students with disabilities. They tend to attribute to students with disability internal and fixed characteristics that go beyond their expertise and their professional knowledge. They just focus on the actual developmental level, without improving the level of potential development of the child. Theorising the difficulties only as a child problem leads to a lack of peculiar information which is fundamental in order to understand the complexity of the situation. This way of proceeding is coherent with the so called 'deficit theories' (Bishop, 2003); despite evidence may demonstrate that the capability of students does not conform to the belief of teachers and embedded deficit theories, teachers may ask students to identify with their theories.

When teachers make a judgment of students *actual and future developmental level,* what do they consider? Do they base their judgment upon a priori knowledge, or upon a posteriori or empirical knowledge, which is obtained after observing the child or interacting with them? Teaching know-how cannot easily be abstracted, captured and codified (Hildreth & Kimble, 2002), and teachers may not be aware of their explicit knowledge: "knowing-that", and Tacit knowledge: "knowing-how". The lack of clarity concerning the different types of information related to the child such as difficulties, disability, risk factor, personal or environmental factor, makes it difficult to have a real understanding of the problem and therefore plan a "personalised" program. Feuser (2001) defined disability from a pedagogical perspective, including the impact of contextual factors. He considered disability as the expression of a lack of adequate curricula and provision in school.

The way in which disabilities or special needs are conceptualised does not involve only education system, but it has been an evolving global debate. Leonardi, Bickenbach, Ustun, Kostanjsek, and Chatterji (2006) point out that:

> To be able to stand up to scrutiny, a definition of disability should be: applicable to all people, without segregation into groups such as "the visually impaired" or "wheelchair users" or those with a chronic illness, and be able to describe the experience of disability across many areas of functioning. The definition should allow comparison of severity across different types of disability, be flexible enough for different applications (eg, statistical or clinical use), be able to describe all types of disability, and recognise the effects of the environment on a person's disability. Finally, the definition should not include stipulations about the causes of any disability. (p. 1219)

The conceptualisations of disabilities or SEN should be based on a universal model and functional approach, moving away from the idea that each child with disabilities has special needs, but rather shares universal dimensions of functioning as a continuum with different children having different abilities, competences and performances.

The World Health Organization (WHO, 2001) revised its International Classification of Functioning, Disability and Health (ICF) in 2001, in order to promote a new model of disability based on the interaction between the person and their environment. In 2007 a child and youth version, referred to as ICF-CY (WHO, 2007), was published to address child-specific aspects, absent in the original ICF (Figure 2).

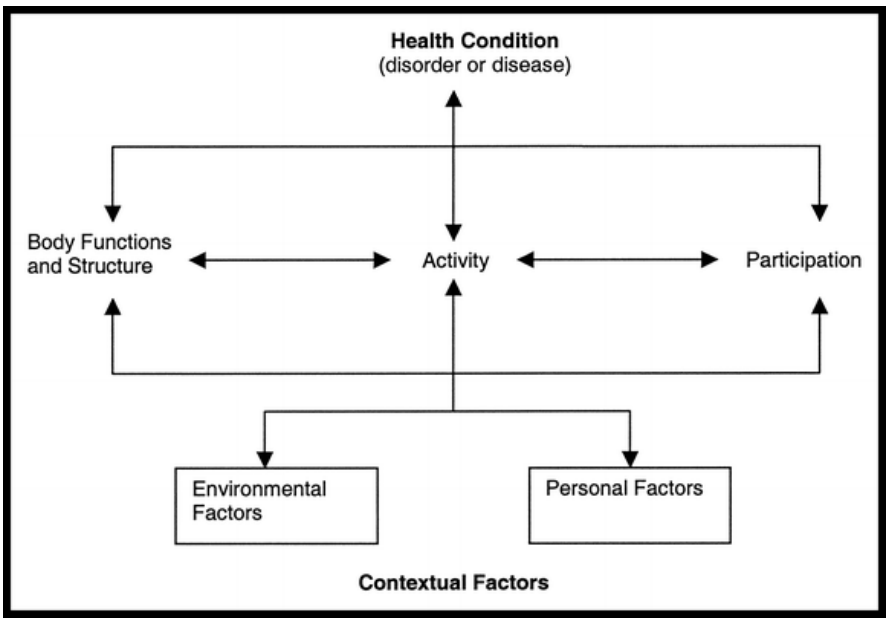

Figure 2: Interaction between the different components of the ICF

Until now disability classifications were based on a mono-dimensional concept of a problem, mostly related to impairment at body level. The paradigm of understanding disability moved however from a linear static consequence model to a biopsychosocial model (Hedderich, 2007).

The ICF was developed "to establish a common language for describing health and health-related states in order to improve communication between different users, such as health care workers, researchers, policy-makers and the public, including people with disabilities" (WHO, 2007, p.5).

The ICF aims at providing a balanced interpretation of the functioning of a person from three key perspectives: the body, the activity and its involvement, and the environment. As described by WHO (2001), the ICF was designed to "provide a unified and standard language and framework for the description of health and health-related states." (p.3). The ICF is based on a biopsychosocial model that incorporates all components of health described at body, individual and societal levels. This model of disability emphasises that the needs of persons with disabilities are not just medical but more broadly, social, educational and contextual. Disability is understood as a complex interaction between health condition and contextual factors and not as an attribute of a person. These changes exemplify a person–environment model of disability which has an impact on the possible interventions. Interventions should focus on one side on the promotion of personal capacity, and on the other side on the environment or context (Soresi, Nota, & Wehmeyer, 2011).

Do teachers have a biopsychosocial model of disability? Do they consider themselves a contextual factor that has an impact on the educational needs of the child?

According to Vehmas (2010) "Changes in educational terminology and policy reflect the general intellectual and ideological shift from a psycho-medical individualistic understanding of difference and disability to a group of social–contextual approaches" (p. 88). According the United Nations Convention on the Rights of Persons with Disabilities (2006), people with disabilities may experience different barriers that may hinder their participation to society. The concept of inclusion in the United Nations Convention refers in its entirety to a basic principle of social coexistence, which should enable all human beings on the basis of equal rights to participate fully and effectively to society (Hedderich, 2016b).

The ICF with the biopsychosocial model, best represents the underpinning concept of disability promoted by the UN convention. Disability describes the situation of a person, not a stable characteristic. This assumption is fully applicable both to education contexts and to the way teachers consider disability. Hedderich (2016b) considered diversity and participation

as relevant guiding principle in the UNCRP. This can be applied in the context of disability in several ways: to value the diversity of people with disabilities, to recognise disability as human diversity, and to recognise the value of people with disabilities to the population.

Participation in education is dependent on the ability of a child to learn, but equally on schools and teachers to provide a positive learning environment and meaningful goals for all children to guide teaching and instruction. The interactions and the diverse aspects involved in education systems are immeasurably complex. The learning process is based on a complex interaction between different factors.

Difficulties in achievement participation in schools can be linked to relational and contextual problems rather than to health problems existing within the child. Participation in schools may be hindered from strict or irrelevant curricula, didactic teaching technique, inappropriate systems of assessment and examinations, and finally inadequate teacher preparation programs and support for teachers (Rouse, 2008).

The problem for the classroom teacher concerned with the special educational needs of a pupil lies in identifying the 'functioning profile and capabilities' of the student learning difficulty or disability, and in assessing the implications and planning for its consequences. Hattie (2012) states that the more accomplished teachers are those sensitive to the context.

According to Wedell (2008) a crucial prerequisite for the subsequent decision for action of any teacher is a clear understanding of the "nature" and the "consequences". It is extremely difficult and challenging to make sense of the dynamics, factors, and characteristic surrounding the disability experience. Disability has been described, interpreted, framed from different perspectives and dimensions: medical, social, at policy level, at educational level.

Conceptualising differences among children and differences related to disability and SEN is a very complex and challenging issue. The risk is that teachers conceptualise disability or special needs with a "subjective knowledge", but this may has a strong implication both in their belief in the capability to make a difference in students learning (Tschannen-Moran & Woolfolk Hoy, 2001) and in the practices. If their understanding is operationalised specifically to both the content taught and the challenges a specific classroom situation presents, empirical evidence exists for a link between teacher beliefs and student. There is no a universal shared and common understanding of disability or Special Educational Needs. Isaksson, Lindqvist, and Bergstr (2007) analysed different IEPs in three schools in Sweden to understand to what extent the problems described, and the intervention provided, could be related to predetermined theoretical models of disability and SEN. The results indicated

that professionals mainly attribute difficulties to the lack of the children and to their individual characteristics. Furthermore, according to Jordan et al. (2009), the beliefs of teachers on the nature of disability itself influence their practice. Jordan and Stanovich (2004) have shown that the epistemological beliefs of teachers about students with disabilities are an indicator of how effective their teaching practices are.

According to Wilson (2002) policies, research and practices are determined both from our perception of "special needs" and the semantic understanding of that phrase. He argues that a distinction exists between the linguistic meaning of "special" and "needs", and the criteria of application in practice: *what is to count as a special need*. His theory claims that both depend not just on empirical fact but on value judgement. Therefore, those working in the practice or concerned with the theory of "special needs" should clarify the value judgement on which their work is embedded. *What is it to count* has very much to do with categorisation, such as label, stigma, disability categories, diagnosis, and the possible support provided. The main risk is that someone may not be counted as a person with special needs, and ergo they might not have the right to get additional support.

The way teachers and special education teachers conceptualise disability is very subjective-based. Do diagnosis help teachers in determine what the support of the child should focus on? Today, researchers strongly believe that it is important to investigate whether teachers go beyond the categories in their work with the child, or whether they consider the diagnosis as explanatory and causal factor of the difficulties of the child, and they do not consequently believe that they can make a difference in the learning of students. Wedell (2008) supports the idea that historically, one of the reasons of categorisation has much to do with the intention of having an understanding of the nature of disability and its practical implication for interventions.

Hattie (2012) claim that labels should not be the reason for not teaching, but rather the starting point.

It is extremely difficult for teachers to make sense of the dynamics and factors having an impact upon the difficulties that a child encounters in school. Are teachers aware of the model they use for understanding and conceptualise such difficulties? For example: what exactly is meant for a teacher when a child is labelled as mentally retarded? There are different causes explaining school-performance of different students. Do they only focus on the label, diagnosis or do they consider other factors, such as contextual information? If teachers and special education teachers are aware of their own attitudes related to disability

and difficulties, they may be able to recognise personal limitations and strength when teaching in the class.

Hattie (2012) states that both the beliefs of teachers and their commitments are the most important factors over which they can have some control, having an impact in student achievement.

According to Tschannen-Moran, Woolfolk Hoy and Hoy (1998), a strong body of empirical evidence support Bandura's Theory (1977) that the belief of self-efficacy of teachers is related to the effort teachers invest in teaching, the goal setting, the resilience and the persistence. A study has been conducted by Tschannen-Moran and Woolfolk Hoy (2001) with the aim of exploring the impact of the sense of personal teaching efficacy (PTE) of teachers in education. PTE represents the belief to influence learning and behaviour of students through their skills and abilities. The results demonstrated that PTE is not only related to outcome, such as achievement motivation or the own sense of efficacy of a student, but has an impact in the behaviour of teachers in the class, including the efforts invested in teaching and the goals they set. A wrong goal setting can lead to child disaffection from school and impact the sense of belonging and engagement in school of a child. Providing education and enforcing the participation of students is not just related to class accommodation or to adapting teaching techniques, but also to setting adequate goals for different disciplines. Teachers should set goals while making a judgement on the level of potential development and concentrate on tasks and area within the range of competence and capability of the child.

Hattie (2012) developed eight "mind frames" representing the way of thinking of teachers who have an effective impact on students learning.

- Mind frame 1: teachers believe that is relevant for their work to evaluate the effect of their teaching on the learning and achievement of students;
- Mind frame 2: teachers believe they are "change agents" or contextual factors having a relevant impact in student learning and achievement. Teachers having this way of thinking believe that learning and achievement is not fixed or stable but rather a changeful process in which teachers may have a relevant impact;
- Mind frame 3: teachers focus more on learning than teaching;
- Mind frame 4: teachers consider "assessment for" a relevant indicator of their impact on the learning of students;
- Mind frame 5: teachers foster dialogue, not monologue;
- Mind frame 6: teachers enjoy challenges;

- Mind frame 7: teachers consider their responsibilities to develop positive relationship among peers;
- Mind frame 8: teachers want to be sure that everyone understands the "language of learning", especially parents.
  (Hattie, 2012, pp. 182-188)

In this thesis, the understanding of disability by teachers has its rationale in the work conducted by Jordan, Schwartz, & McGhie-Richmond, (2009); Jordan & Stanovich, (2001); Stanovich & Jordan, (1998). This area of the study has been selected from the "Pathognomonic-Interventionist Beliefs System" interview (Stanovich & Jordan, 1998). The original name of the construct investigating the understanding of disability is "Referral and assessment". The interview aims to investigate whether teachers consider the difficulties as something stable related to the student. Teachers, on the other side, may view the problem of a student as a result of the interaction of the student with their environment, and expects the problem of the student to be addressed by the rest of the teaching staff.
What difference makes a difference? In this thesis the researcher aimed to investigate how teachers and support teachers that participated in the study conceptualise the learning difficulties of their students. Teachers were asked to provide information on how they perceive their roles with regard to children with disability included in their class. Whether they consider the difficulties as something exclusively related to the child or if they have an understanding more coherent with a biopsychosocial approach and therefore consider themselves important.

1.4.3 Programming: what teachers do in order to adapt the context to the needs of the students? Goal setting, class accommodation, differentiated instructions

This section explores the challenge of goal setting in education and provide the theoretical framework for the second research questions:

"Is there a relationship between the conceptualisation of disability and programming of the teachers?

- How do teachers conceptualise the disability of the identified child?

- What teachers do in order to adapt the context to the needs of the students? Eg how do the teachers adapt goal setting, class accommodation, differentiated instructions?"

For many students with disabilities, and for all students, the key to success in school lies in having appropriate adaptations, accommodations, and modifications in curriculum, setting and instruction.

The shift from an exclusive orientation on means, such as class accommodation or the fair redistribution of educational means, versus an integrated perspective considering both goals and means has occurred in international policy papers and debate, and in practice. But is this shift towards a goal-orientation already reflected in educational policies and practice?

Quality in education is not only related to resources allocation or means. In order to ensure that the support provided meets the characteristics of the child, the way in which the interventions are planned is crucial. Goals determine the way in which the support provided meets the needs of the child and promotes the agency of capability of the child.

The growing interest in the achievement of students has become an important issue in education, considering its potential implication to the development of societies (Morgado & Sousa, 2010).

While general education has since undergone a major shift to concentrating more on student outcomes and has implemented different systems of accountability to ensure that all children reach basic academic goals perceived as necessary to participate actively in society, policies and practice related to children with disabilities today are still strangely silent on the outcomes.

Educational goals can be understood as the explicit or implicit expectations a society has towards education and future generations. Goals can set the stage for expectations, prejudices and actions that teachers and other professionals engage in. They play out through educational policies and practices and by doing so they influence educational environments.

In the past years some concerns have been expressed regarding the validity and reliability of teacher judgments.

The introduction of accountability procedures such as large standards-driven assessment can be interpreted as the consequence of a lack of trust in the ability of teachers to adequately judge student performance against specific criteria. Standards were introduced to help teachers verifying the national curricula, by describing different levels of knowledge or outcome students should attain (Hollenweger, 2011b).

Ravich (2010) defines three domains in which standards can be established and outcome measured: (a) student performance or functioning of student, (b) educational goals and (c) educational environments. However, discussions on outcome have resonated little with the inclusive education community.

In the U.S.A the pressure toward a standardisation of accountability measures has been compared to a "McDonaldisation of education". Like the fast-food industry, education may be standardised in an attempt to provide standardised curriculum and pedagogy (Tamatea, 2005). Growing diversity and problems of schools in responding to it, is mainly met with increased levels of redistribution of resources and means. The assumption that children with SEN only require additional resources to promote their capabilities reflects a failure in considering "how" the support should be provided. Perhaps the child does not need additional resources but rather a different way of using the resources. An accommodation may allow for example a student to complete the same assignment as other students, but with a modification in the timing, formatting, scheduling, structure presentation, or setting. This accommodation does not alter the contents of the assignment. For example, a student who has a visual impairment must accomplish the same assignment but with larger character. Another student might perform the same test alone in a quiet room. Accommodations do not change *what* the student is learning but rather *how* they are learning. Teachers can also think that the child requires bigger adjustment, and therefore may change the structure, the requirement, or the contents of a test. Modification changes what the student is expected to learn. Examples of major changes include a student completing the 50% of an assignment, or a student completing an alternate assignment that is more easily achievable than the original version.

The growing literature on social justice and inclusive education criticises the obsession with distributive justice as it leads to a downgrading of the person with a disability as they are always seen as the one "lacking" in whatever the education system needs to provide them with. The exclusive focus on a "fair distribution of resources" masks questions of values and conceptualisations (Wilson, 2002).

Education should not only be understood as a mere "social good" to be distributed, but also as a mean to achieve liberty and self-determination in human interactions, "retributive justice", and both approaches should be combined, recognitive justice, (Gale, 2000; Higgins, MacArthur, & Kelly, 2009). Higgins et al. (2009), state that a recognitive justice position "emphasises a positive regard for *diversity* and the development of positive group identities; the participation of groups in making decisions that affect them; and the provision of opportunity for all people to exercise their *capability* and *agency*" (p. 472).

In “general education”, goals mainly represent the content of education conceptualised as student performance standard or national curriculum. Hattie (2012) considers that when planning there are four critical factors to consider: the level of “performance”, the “desired level” or target learning, the “rate of progress” and finally the collaboration of teachers in planning.

Performance represents the highest probable level of functioning that a person may reach in a given domain. Children performance can be linked to student achievement in schooling demand (reading, calculating, solving problems) but can also refer to non-academic abilities, for example handling stress. If a child experiments difficulty in meeting a goal, the curriculum can be “individualised” according to their needs. Generally, the individual Educative plan is the “tool” by which a student is guided through the learning process. According to Lee-Tarver (2006) many mainstreaming teachers consider IEPs a useful tool both for the child and for them. According to them IEPs can serve for different purpose; they can be used for planning and implementing educational goals for students with disabilities, but can also help teachers with the organization and systematisation of their teaching.

The Individual Educative Plan (IEP) is based on different goals the team sets for a child, outlines any special support needed to help achieving them, and specifies how often the support will be provided. IEP reflects the performance that teachers and/or special educators believe to be achievable and worth attaining. Educative plan is most of the time left completely to the judgement of teachers; however, when a guideline is provided, IEP are more effective (Poppes, Vlaskamp, & De Geeter, 2002).

Goals are considered the core of education. All the professionals should determine a certain level of performance that a child has to reach, as well as identifying present functioning and potential future functioning. Goals are considered the most essential component of an IEP. Without goals, there is no clear vision on future needs (Giangreco, Dennis, Edelman, and Cloninger, 1994). The clear formulation of goals leads to IEP of good quality, which in turn improves the quality of the education or support provided (Poppes et al., 2002). Very little research has been conducted regarding the relationship between national and individualised curricula as well as the general goal planning process. However, a study by Giangreco et al. (1994) demonstrated that goal formulation is often inconsistent and vague (Poppes et al., 2002). According to Goddard (1997), all the IEP are intrinsically linked to behavioural objectives, and consequently they can have a negative impact in educational practice and progress. This is due to the fact that they can give the illusion of quantifying exactly the progress of a child. Hattie (2012) defines goals as the *learning intentions.*

The level of participation in school is intrinsically related to the performance teachers believe to be achievable by the child. A study conducted by Tschannen-Moran and Woolfolk Hoi (2001) explored the impact on the sense of personal teaching efficacy (PTE) of teachers in education. PTE represents the belief to influence the learning and behaviour of students through their skills and abilities. The results demonstrated that PTE is not only related to outcome such as achievement motivation or the own sense of efficacy of a student, but has an impact on the behaviour of teachers in the class, including the efforts invested in teaching and the goals they set. We can consequently assume that a wrong goal setting can leads to child disaffection from school and impact the sense of belonging of a child, and their engagement in school. Schools constitute a central base for the everyday life of many youth; they are not only a learning environment but represent also a primary environment for the education, socialisation and development of the child.

Allen and Fraser (2007) emphasised the gap existing between parents and teacher world, assuming that they often do not share the same perception on what is going on in the class. Learning dimension and home dimension should share the same plan in order to improve child capabilities. Many time different professionals working together in the education system, as well as parents, tend to assign different importance to different characteristic of the child. This can generate conflicts between the goals planned amongst the different specialists and can lead up to the phenomena of "planning different goals for the same child". While the general goals of education, such as establishing autonomy and independence, are similar for most children, there may be divergent strategies for their achievements.

Goals need to be complementary; parents, teachers, educators and specialists are likely to emphasise different aspect of functioning and different goals to be reached. Professionals need to cooperate to provide a coherent environment to facilitate learning and development. Information and goals need to be shared amongst professional, parents and their children to ensure effective and efficient collaboration.

Education is a process by which people develop their human capital. The aim of education and being successful in school is not just related to test measure or to fixed and standard goals. Tests and accountability cannot be the primary indicator of evaluation. Being successful in school is not only related to being successful with standards. Tests can provide useful information on the progress of students in specific disciplines, but they do not provide an understanding of what matters most in education. Not everything that matters in the process of education can be quantified (Ravich, 2010).

Standards are a relevant indicator to evaluate the required preparation of students in different disciplines, but when it comes to students with disabilities, achievement cannot be linked to standard.

Participation in school it is not just related to student achievement, but it can be defined as being engaged in typical activities that have high priority. Being engaged is considered an important component of participation. School engagement can be considered as a multi-dimensional construct including:

> School engagement is a multi-dimensional construct including behavioural engagement (positive conduct, involvement in learning and academic tasks, participation in school-related activities), emotional engagement (affective reactions such as interest, happiness, identification with teachers and peers) and cognitive engagement (self-regulation, flexibility in problem solving, coping strategies) (Fredricks et al., 2004). (European Agency, 2011, p.28)

Providing education and enforcing the participation of students are not just related to class accommodation or to varying teaching techniques, but also to setting adequate goals for different disciplines. Teachers should set goals looking at the level of potential development and concentrate on tasks and area within the range of competence and capability of the child. Placing students with disabilities in regular classroom is a prerequisite for inclusive education but is not of course possible to achieve equality simply through classroom placement. Learning is a dynamic process; therefore, the classroom should set the stage for this dynamism.

How teachers could respond to students who are so different, within the same classroom? Class accommodation or modification support children in having equal access to education. Accommodation includes changes that remove barriers to learning. Some accommodations are as simple as moving a student with attention problems to the front of the class.

The assumption that students in the same classroom can work towards different goals, in different ways, presumes that the classroom environment becomes a flexible and dynamic setting. Classroom accommodation may include different adjustments, such as reducing visual distraction, sitting the student away from windows, sitting the students needing movement breaks close to the doorway, posting a visual schedule etc.

> Expert teachers can identify the most important ways in which to represent the subject they teach…expert teachers do not differ in the amount of knowledge that they have about curriculum matters…but

> expert teachers do differ in how they organize and use this content knowledge. (Hattie, 2012, p.28)

In every class there is a relevant spread in the capabilities of the child. How to accommodate these differences is a big challenge for teachers. According to Hattie (2012), in order to differentiate their interventions teachers have to know the prior achievement, the target learning and the progress a student achieves in their learning process. Furthermore, they have to be aware of which of their strategies is effective or need to be adapted to the student.
The way in which teachers teach content knowledge is relevant for student learning and engagement. Hattie (2012) states that teachers talk between 70 and 80 per cent of class time; when instructions are challenging, relevant and academically demanding, all students, especially the ones at risk, have higher engagement and teachers talked less.
For teachers, it is very important to know the learning style of their students. Teachers ability to adjust the way of teaching to the learning style of the student is also fundamental (Cassidy, 2004). Way of teaching versus way of learning; there is a correlation between teaching style and student achievement (Evans, 2006).
According to Feuser (1998) didactic-method should be considered the core of the preparation of the teachers' lesson. Didactic-method have a long historical tradition. Since the founding of modern didactics by Ratke and Comenius, didactic-method can be defined as the milestone for planning, implementing, and monitoring the process of teaching.
The power and effects of peers on learning is high. Cooperative learning in heterogeneous classes seems to be more effective than individualistic approach.

In the thesis the area of Programming has been analysed thorough the Pathognomonic-Interventionist Beliefs System interview (Jordan, Schwartz, & McGhie-Richmond, 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998). The researcher decided to further investigate one of the objects of the area of Programming, goal setting, with an additional tool: the Activity Theory framework (Engeström 2001, 2008).
The Activity Theory framework (Engeström 2001, 2008) has been used to disaggregated different mediating factors that influence the process of Goal Setting. Activity Theory has its origin on the work of Vygotski, Luria and Leontiev and is based on the premise that human actions are mediated not only by the tools that are used but also by cultural factors. The framework analyses the interactions between different parts of the social systems. These are grouped into six elements: subject; object; tools; rules; division of labour and learning

community, in pursuit of a particular objective. The object represents the focus of the activity and provides the direction and outcome of the activity. It may be useful to analyse complex interactions between individuals and groups as they work together in multidisciplinary settings (Engeström 2001, 2008), such as the activity of goal setting.

In the context of a classroom (see Figure 3), the activity of the subject (eg teachers) is oriented towards an object (eg goal setting) and mediated by the instruments or tools used (Individual Educative Plan). In addition, the activity of the individual is also mediated by rules (eg laws and policies), the community (eg colleagues) and the division of labour (eg who does what).

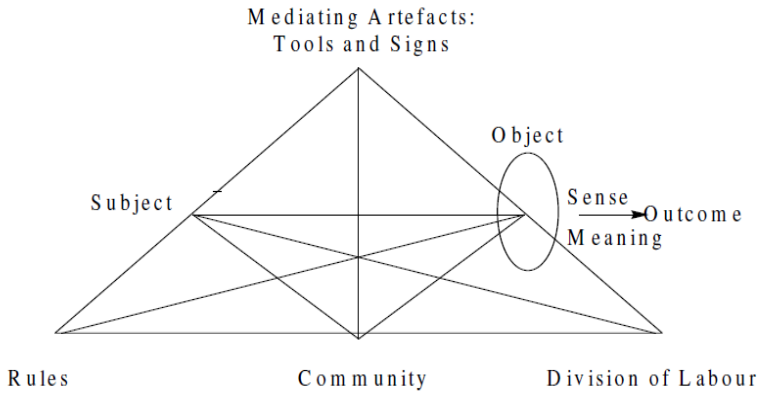

Figure 3: The structure of a human activity system

The framework helped in disaggregating different mediating factors that influence the activity of Goal setting. Five additional questions have been added to the original interview form, using as a rationale the model of Engeström (2001, 2008) (Table 1).

Mediating factors	Activity of goal setting
Subject	*Teachers and special education teachers*
Object	*Goal setting*
Tools	*Information about tools for goal setting (eg Individual Educative Plan)*
Rules	*Information about rules, policies or legislation for goal setting and IEP*
Community	*Information about the professionals responsible for goal setting*
Division of labour	*Sharing responsibilities in setting goals: who does what*

Table 1: Activity of goal setting, mediating factors

In this thesis the researcher aims to investigate whether teachers adapt the provision, goals and teaching method to the need of the child. When children have problems in learning they may not need more, but rather different. The areas investigated are grouped in the macro area of "Programming".

1.4.4 Teachers' sense of self-efficacy

This section explores the construct of self-efficacy and how this influences teaching practices. The contents provide the theoretical framework for the first research question:

> "Is there a relationship between the sense of self-efficacy of the teachers and their attitude about their roles and responsibilities in working with students with disability?
>
> - How do teachers consider their attitudes to roles and responsibilities with their students with disability?
> - How do teachers perceive their sense of self-efficacy?"

The sense of self-efficacy influences every behaviour, performance and actions, in different life situations for different people. Different theoretical approaches have investigated the

construct of self-efficacy. The Social Cognitive Theory, mostly represented by Albert Bandura (1977), defined self-efficacy as one's belief in one's ability to succeed in specific situations. The sense of self-efficacy can play a major role in how people approach goals, tasks, and challenges. People may avoid challenges where self-efficacy is low, but face tasks where self-efficacy is high.

Bandura (1977), distinguishes between *outcome expectancy* and *efficacy expectation*. Outcome expectancy is defined as "the estimate by a person that a certain behaviour will lead to certain outcome" (Bandura, 1977, p. 193). Efficacy expectation refers to the successful execution of a behaviour required to produce outcomes. Outcome and efficacy are distinguished but interrelated; individual may be aware and therefore believe that a specific course of action may produce a specific outcome, but, on the other hand, if they have doubt about whether they can perform the required activities, such information is not relevant and therefore such information does not influence their behaviour.

The belief and conviction of teachers in their own effectiveness influence and affect whether they will try to cope with specific situations. Bandura (1977) stated that at this initial level, perceived self-efficacy influences the choice of specific behavioural setting. Efficacy expectation has an impact upon both the effort people will expend, and how long they persist in facing obstacles and negative and demanding experiences. According Bandura (1977) efficacy expectation is a multidimensional construct based on different dimensions:

- Magnitude: related to the level of difficulty;
- Generality: generalised VS specific situation;
- Strength: weak VS strong expectations.

The behaviour of teachers in class is influenced both by their own efficacy expectations and their belief that what they do will be effective (Palmer, 2006).

The theory of Self–efficacy, applied to education, led research to investigate the correlation between the beliefs of teachers in self-efficacy, and their actions and the outcomes they achieve (Tschannen-Moran & Woolfolk Hoy, 2001). The sense of self-efficacy of a teacher is correlated to their belief about whether or not they are capable of performing the set of effective teaching behaviours.

According to Tschannen-Moran & Hoy (2007) "it is important to note that self-efficacy is a motivational construct based on self-perception of competence rather than actual level of competence" (p. 946).

If, from one side, expectation influences the performance, on the other side, also the performance influences the expectation.
Bandura (1997) identified four factors influencing the beliefs of teachers in self-efficacy:

- mastery experiences;
- verbal persuasion;
- vicarious experiences;
- physiological arousal.

Tschannen-Moran and Woolfolk Hoy (2007) applied the four factors to teachers and their work with students in the class. Mastery experience is the most relevant factor. Efficacy beliefs raise if teachers perceive their teaching performance to be effective; on the other side, efficacy beliefs are lower if teachers perceive their teaching performance not to be effective. A positive performance raises self-efficacy, whether a negative one, lowers it. Verbal persuasion is related to feedback that teachers receive about the performance, from relevant people. Vicarious experience has to do with a "model". When a model with which teachers identified succeeds, self-efficacy increases; when the model fail, self-efficacy decreases. Psychological arousal is related to the positive emotions and feelings that teachers experiences in their activities, for example in teaching a lesson; this may have a positive effect in self-efficacy. On the other side, when teachers experience fatigues, anxiety, or fear of losing control, these feelings may have a negative impact upon the sense of self-efficacy.
Experiences of teachers with students influence the level of personal teaching efficacy. If a teacher uses a specific behaviour, attitude or strategy with a student, and as a result, the student makes accomplishment at school, the teacher accumulated a positive teaching experience with that student who has a positive impact in the sense of self-efficacy and therefore in their effectiveness with students. On the other side, if a teacher experiences difficulties with a student who is having learning difficulties, teachers will accumulate a negative experience in working with that student. This negative experience is an indicator that the teacher may not have the adequate skills or expertise that are needed in order to be effective with that student. As a consequence, teachers may believe that they are not responsible for that student, and this leads to a lack of motivation to work with that student.
The main questions to address are the following: is there a correlation between the self-efficacy of teachers and student achievements? How does the sense of self-efficacy influence the behaviour of teachers and their activities in class?

The sense of efficacy of teachers has been demonstrated from the general and special education literature to have a relevant impact upon student outcomes, such as motivation, achievement, and self-efficacy beliefs (Anderson, Greene, & Loewen, 1988; Tschannen-Moran & Johnson, 2011). Therefore, there are identifiable teaching behaviours that may be linked to student achievement. The construct of self-efficacy is related to the specific context in which teachers teach. Therefore, the self-efficacy of teachers has been examined in relation to different school-level variables, such as the climate and structure of the school, the leadership of the principals, and the collective efficacy of the organisation (Tschannen-Moran & Woolfolk Hoy, 2007).

One important aspect of research concerning how the beliefs of teachers may influence their teaching behaviours and activities, is the concept of teacher efficacy, which Ashton and Webb (1986) have defined as the situation-specific perceptions that teachers have about their own teaching abilities. Teacher efficacy has also been defined as the extent to which the teacher believes he or she has the capacity to influence the performance of students. Many researchers have found that the beliefs of teachers in efficacy are indeed related to their instructional practices with students who exhibit learning difficulties. High-efficacy teachers tend to be more open to experimenting with new teaching methods and strategies that can better address the specific needs of every child (Ashton & Webb, 1986).

"Talis" large scale survey (OECD, 2013) reports that teachers with more than five years of experience have a high sense of self-efficacy.

According to Hattie (2012), self-efficacy has an impact on the way teachers deal with hard tasks. Teachers with a high sense of self-efficacy think of a hard task as a challenge, and when they fail they focus at the positive aspect of learning from a negative experience. On the other side, teachers with a low sense of self-efficacy tend to avoid hard task and when they fail are slow to recover their confidence.

Self-efficacy builds efficacy in practice. Teachers who have successfully implemented teaching strategies for students with disability tend to have a high sense of self-efficacy, which in turn influences their practice. The researcher believes that when there are many teachers with high effectiveness in a school context, the context itself became efficacious.

In this thesis the researcher investigates the sense of self-efficacy through the Teacher Sense of Efficacy Scale (TSE) developed by Tschannen-Moran & Woolfolk Hoy (2001, 2007). Teachers were asked information about their efficacy for instructional strategies; for classroom management, and for student engagement.

CHAPTER 2: AREAS OF THE STUDY: A REGION OF ITALY AND A CANTON OF SWITZERLAND

Despite their proximity, Italy and Switzerland adopted different school systems for children with disability or those requiring additional support. The attempt to compare two countries with such a different school system is a challenge, but also an opportunity from the scientific point of view, since it lets the researcher studies the results of the application of the two systems on two population samples which are close to each other linguistically but differ culturally.

In this chapter the researcher presents the main features of the education systems of an Italian region and a Swiss canton, for students with disability in primary schools. The aim is not to give a full explanation of the educational systems, but instead to provide contextual information in order to understand the areas of the study, and consequently the data presented in Chapter 4 and the discussion and conclusion presented in Chapter 5. The chapter is divided into two paragraphs: the first focuses on the region of Lombardy, while the second on the canton of Ticino. Each section is structured to present the approach to inclusive education adopted in the two regions, and to provide an understanding of contextual information of the two educational systems: how they are organised, the policy framework, and teacher staff who works to support students with SEN. The contents are structured into three dilemmas: the *identification dilemma*, the *curriculum dilemma*, and the *location dilemma* (Norwich, 2008a, 2008b, 2009, 2010). Like for many other countries, inclusion of students with disabilities in the Lombardy region and the canton of Ticino is a complex challenge depending on different factors: the assessment of the difficulties of the child, the adjustment of standard curriculum, and the location of the support. The dilemmas represent the challenge in implementing inclusive education in the praxis, and they are strictly related to the subjects investigated in this study.

2.1 EDUCATION SYSTEM FOR STUDENTS WITH DISABILITY IN PRIMARY SCHOOL IN ITALY. A SPECIFIC FOCUS ON INCLUSIVE EDUCATION IN THE LOMBARDY REGION

2.1.1 Addressing diversity and policy framework: the *identification dilemma*

Italy is known for having an inclusive education system with regard to location. Italy was a pioneer country in promoting the inclusion of children with disability or Special Educational Needs in mainstreaming classes. Since 1977 legislation and policies promoted the inclusion of identified children in regular classes.

Despite the framework behind the policies aimed to promote a society that strives to be inclusive, there are some contradictions highlighting the difficulties behind the implementation of said policies. Italy is one of the countries investing the least in its education system. General government expenditure on education with a share of GDP 4.2% in 2012 is among the lowest in the European Union (European Commission, 2014).

The inclusion of identified children in mainstreaming classes requires a large amount of resources, such as the hours support teachers spend in the class. The risk is that children with severe disability are included in the class with inadequate hours of individualised support, or with no support at all.

The Italian system of inclusive education is facing some issues, and the challenge to address the specific needs of children in mainstreaming classes requires the support of different factors, such as: adequate resources, well-prepared teachers, stable government and legislations, collaboration among state and regions.

The education system of Italy is organised according to the principles of subsidiarity and school autonomy with regard to didactic, organisational and research activities. The state and the regions share legislative competence; regions should comply with the provisions of national legislation. This co-participation in school funding among the macro and meso level (central government, regions and local authorities) depends on the different competences and roles defined by the policies.

The Ministry of Education, Universities and Research (MIUR) is responsible for guaranteeing the equality of national educational provisions. The MIUR legislates for example on general educational goals, general national curriculum, standards related to the

quality of educational services, and general criteria for the assessment of students. The State, regions and municipalities are responsible for school funding. The Ministry of Education provides the 80% of school funding. The regions and local authorities provide the other 20% of school funding that guarantees two types of interventions: direct and indirect. Direct interventions include economical support, aimed to guarantee school attendance. Indirect interventions include some services, such as transport, meals and textbooks. Municipalities provide support services and assistance to students with disabilities attending schools in their areas. Municipalities and provincial authorities provide for example funds for school buildings and for removing architectural barriers. The MIUR also provides special funds for the inclusion of students with disability: teacher training, students' outcomes and achievement, means. In 1999, Presidential Decree (DPR) 275/1999 granted Italian schools didactical, administrative and financial autonomy and also gave the rights to schools to receive funds from private or public sources.

The principle of guaranteeing an accessible education system lies also in the Italian Constitution. The Italian Constitution states in fact that the Italian Republic guarantees school for all (Article 34), while Article 3 states that the Republic has to "remove any obstacles constraining the freedom and equality of citizens in order to ensure the full development of the human person".

Retracing the history of inclusive education, the Italian system of inclusion was first established by the Law n. 118/1971, which promoted the inclusion of children with disability in mainstreaming classes. The demand for a more inclusive society has been reinforced in 1980, when Law n. 180/1978 (Law Basaglia) was enacted. The law aimed to abolish psychiatric hospitals for people with mental disorders. This shift toward a more inclusive society has been confirmed by Law n. 517/77, which reinforced the abolishment of special settings and promoted the integration in mainstreaming classes. Therefore, since 1977 Italian policies demanded the full integration of children with disabilities in compulsory education. D'Alessio (2011) claimed that the Law n. 118/1971 only promoted ways of facilitating the process of integration, but it is not correct to affirm that it makes the integration compulsory. An important shift toward an integrative system has been given by The Falcucci document (Ministry of education, 1975), which considers integration as not just a matter of location but as a more comprehensive process that should consider different factors. The Falcucci document had an impact on legislation since it broadens the scope to include teaching method in addition to location. Despite the aforementioned substantial effort in endorsing new knowledge, later legislative measures did not implement the shift promoted by the

Falcucci document (D'Alessio, 2011).

The policy that formally promoted the integration of children with disability in mainstreaming classes was Law n. 517/1977. Law n. 517 in fact abolished special classes and provided some recommendation on school practice with a special focus on individualised education. Specialised teachers, named "support teachers", were introduced in classrooms to work with the classroom teacher. Despite Canevaro (2007) considers this Law the milestone of integration, according to D'Alessio (2011) the Law reinforced the medical model.

In 1992 the government promoted the "milestone" legislation on social and educational integration for people with disability: Law n. 104, or "Law for the support, social integration and rights of persons with handicap". Law n. 104/ 92 promoted the responsibility of the society in enforcing the full participation and integration of people with disabilities in the society itself. This approach apparently reflects a shift from a medical to a more holistic model: disability is no longer conceptualised only as an organic or neurological condition related to the person, but rather as a complex interaction between health condition and contextual factors. According to Law n. 104, the integration of children with disability in mainstreaming classes has the aim of promoting different skills in different students, for example relational, communicative and social skills.

In order to have the right to be entitled for additional support, the child needs a "label", that is to say a proper diagnosis. Article 3, paragraph 1 of Law n. 104 stated that a "a person with a handicap is a person with stabilised or progressive physical, mental or sensorial impairments, causing such learning, relationship and working integration difficulties as to give rise to social disadvantage or isolation". The label has an implication on how the child should be cared for, and on the interventions to be provided. Children without label, but nevertheless requiring additional support, were potentially excluded. For this purpose, the Ministerial Directive of 27 December 2012, on "Measures for pupils with special educational needs and local organisations for school inclusion", created an "umbrella" macro-label named "Special Needs Education" (SNE), to cover all kinds of difficulties, including those related to contextual and personal factors: specific learning disorders, specific developmental disorders, socio-economic, cultural or linguistic disadvantages, as well as students who may be in need of special care. Children falling under Special Needs Education have the right to have individualised and personalised education plans.

For the same reason, Law n. 170/2010 has been established to support students with specific learning disorders. Law n. 170 recognises dyslexia, dysgraphia, dysorthographia and

dyscalculia as specific learning disorders (SLD). Subsequent Guidelines (2011) specify educational and didactic measures to support the teaching and learning processes. Schools provide the pedagogic and didactic interventions necessary to meet their educational goals. Teachers can use personalised education plans and compensatory complementary tools to implement individualised educational processes.

Despite the innovative shift toward a holistic conceptualisation of disability, the medical model still plays an important role in the whole educational process. Local health centres are responsible for the assessment of the child; these centres have their own way of labelling the child and rates of identification may vary widely across each service. The multidisciplinary team who first diagnose the child is mainly medical based. As a result of the assessment, the team should provide a Functional Diagnosis based on clinical and psycho-social information. The assessment investigates only the impairment of the child without considering their learning potentiality, neither their functioning profile. It rather provides a systematic description of the psycho-physical conditions of the child. A pure medical description of the functioning of the child may not be so relevant in education, because functioning is linked to the broader educational environment and to different life domains. For example, when describing the functioning of children with Down's syndrome, social aspects can be more relevant than cognitive functioning. The Functional diagnosis provides the child with the certification of "handicap" and the right to get support. After the medical assessment, the child starts schooling, most of the time in a mainstreaming class.

After the Functional Diagnosis, professionals have to complete the Functional Dynamic Profile, a sort of prognosis of the development of the child in a timeframe that goes from six months to two years. The Profile provides a description of the difficulties of the child, combined with their potential development in different life areas. At the opposite of the diagnosis, the profile is fulfilled within a multidisciplinary team including teachers, special teachers and parents. A further step is then the development of an Individual Educative Plan (IEP), which is based on the information collected in the two previous documents. The researcher considered that information relevant for educational planning should be different from information needed to identify a disability or a special need. A disability may explain some of the specific difficulties a child would encounter, but such knowledge does not necessarily help to plan interventions. The multidisciplinary team, with the support of parents, should develop an IEP to ensure the full potentiality of the child. In the legislation there are no guideline helping teachers and professionals in setting goals. Every identified child has

therefore a Functional Diagnosis, a Functional Dynamic Profile and an Individual Educative Plan.

Since the establishment of Law n. 104/1992, there was no other relevant legislation on disability. In the past 10 years, however, the structure, curriculum, and teacher composition in a primary school class changed, according to a shift of government which promoted different legislations.

Ianes, Demo, and Zambotti (2010) reported some data provided by the Ministry of Education: between 2001-2002 and 2009-2010 the number of certified students grew from 138'600 to 200'464. This data means that the number of identified students increased by 45%. Do policies and practices focused on implementing the quality of inclusive education improve as well? Inclusive education requires a massive scientific based organisation, but apparently only a small percentage of school staff is prepared for that (Anastasiou, Kauffman & Di Nuovo, 2015).

2.1.2 The *curriculum dilemma*

The inclusion of children with disability brings some dilemma at curriculum level.

In 2013 the government abolished the compulsory national curriculum and, in order to enforce school autonomy, promoted a National Guideline (ie *Indicazioni Nazionali*) with learning goals and competences that every student has to achieve.

Italy does not have Standardised Attainment Tests, and students with disability or SEN are evaluated through the achievement of goals set by teachers in the Individual Education Plans. Starting from the year 2009/2010 Italy founded a National Institute for the Evaluation of Education, Training and Teaching known as *INVAlSi* (*Istituto Nazionale per la Valutazione del Sistema Educativo di Istruzione e di Formazione*) with the aim of evaluating the national education system through the measurement of school performance (D'Alessio, 2011). Since 2013, schools are required to develop an Annual Plan for Inclusion (PAI). The PAI is a document that describes curricular and extra-curricular activities, goals, resources, and means that schools implement. At the end of the year, schools are required to evaluate the efficacy of their inclusiveness.

Differences in the curriculum are attributed to the diversity of goals and needs listed in the IEP. The IEP influences therefore the contents of the curriculum. When the goals of the IEP

are similar to standard goals and to classroom curriculum, the student follows a so-called minimum-goals curriculum. Every teacher indicates, for their subject, the goal the student has to achieve in order to reach the minimum target.

When the goals of the IEP are very different from those of the rest of the class, the child has a completely differentiated and individualised classroom curriculum, but they do not obtain a qualification having legal value.

Despite the difficulties mentioned above, Canevaro (2007) considered that inclusive education had a positive impact upon the learning process of students with disability. According to him inclusive education was an opportunity for teachers to develop innovative didactic methods and differentiated instructions.

The challenge of curriculum dilemma in inclusive education is the extent to which IEPs reflect the general curriculum. Consideration should in fact be given to linking IEPs with areas of the class curriculum. This possible shortcoming in the IEP is a relevant issue because it may mean that students with disabilities are not working towards the same goals as their peers.

IEP is not only a document, it's process. The IEP should consider the child's present levels of performance, including how the disability impacts his or her involvement and progress in the general curriculum.

2.1.3 The *location dilemma*

Among the great variety of the resources provided to students with disabilities, one of the most important to consider is the setting in which the support provided is located. In Italy the 99.5% of students with disabilities are included in mainstreaming classes (OECD, 2004). The reason for the high percentage of students included is related to the legislation of the country: Italy in fact implements inclusive education at policy level. Children identified as requiring additional support are included in mainstreaming classes with the support of a support teacher. The Matrix (Hollenweger, 2010) shows the process (Figure 4).

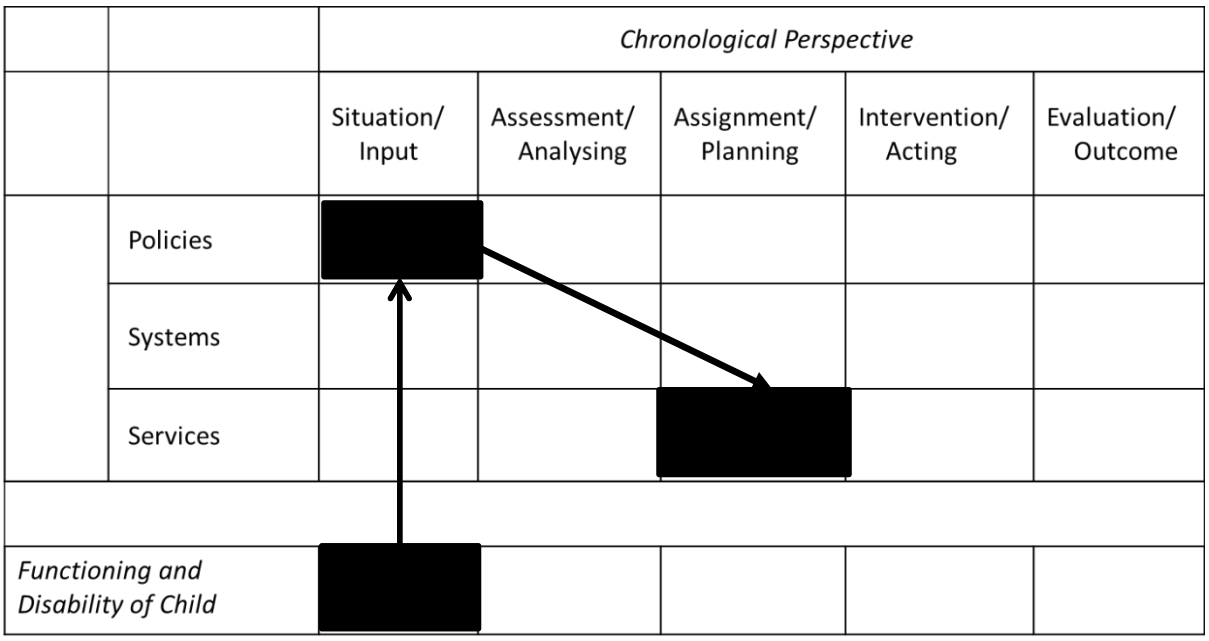

Figure 4: Matrix analysing the use of different disability categories and types of problems

Giangreco, Doyle and Suter (2012a, 2012b) provided data from 16 schools distributed in five regions in Italy. The finding raised some questions about the contradiction between a fully inclusive system and its application in the daily classroom practice. The study demonstrated that students with disability are pulled out of the class to be given small group or individual support. According to OECD (2004) the 99.5% of students are included in mainstreaming classes, but the reality seems to be different. The number of hours spent in mainstreaming class or out of the class by student identified as disabled is still difficult to define. Students may go for specialised treatments (such as speech or physical therapy) or individualised support in a support class during the regular school timetable (Giangreco et al., 2012a, 2012b).

This seems to generate a conflict with the law, as some schools create special units outside the class in order to meet the specific needs of the child. “In our view, the problem here is that this ‘grey’ special education is not ‘legalized’ within a ‘fully inclusive education system,’ and, therefore, is non-accountable”. (Anastasiou et al., 2015, p. 439).

Ianes et al. (2014) confirmed that inclusive education takes the form of a mixed in-and-out class support. The reason is related to teaching method: the teaching approach used in the class in fact does not always meet the needs of every student. The environment in which the support is located is definitely important for implementing a real inclusive education, but consideration should also be given to other arguments, such as goal setting, class accommodation, differentiated instructions. The mainstreaming class is the scene on which other relevant factors play a major role.

The enforcement of a fully inclusive setting may create some challenges and dilemmas on how means, goals and the activity of the teachers can be implemented in the practices.

In this thesis the researcher investigated how teachers relate with some of their professional activities. It is interesting to investigate not only whether teachers go beyond the diagnosis, but also whether teachers go beyond the location of the support (mainstreaming classes), which is “established” by the Law, and try to adapt the goals, accommodate the class, provide different instructions. Teachers were also interviewed about the location issue, whether the support was provided inside, outside the class or with a mixed approach, as described by Ianes et al. (2014).

2.1.4 Teachers and special support teachers working together in the context of inclusive education

The Decree n. 8 of November 2011 stated that teacher-education should provide teachers with different competences in order to support them to perform their tasks effectively in the classroom. The Decree lists some skills teachers should acquire: psycho-pedagogical, didactic, relational, related to coordination. The process by which teachers are trained is constantly under political debate in Italy, and it is therefore not stable; given the current unstable situation it may in fact change substantially within the next years (Rondanini & Capaldo, 2013).

Teacher composition in primary school also changed in the past 30 years. In 1990 Law n. 148 abolished the unique teacher in the class and introduced different teachers, specifically three

teachers working together in the same class. The first teacher was responsible for the linguistic area, the second teacher for the logical-mathematical subject, while the third was responsible for special subjects, such as music. In contrast with Law n. 148, in 2008 within a plan for resource rationalisation in education system, Law n. 169 reintroduced the "maestro unico prevalente" (prevalent sole teacher).

According to Ianes et al. (2010), from 2007 the quality of inclusive education decreased due to fragmented policies having a negative impact in school practices. For example, the shift toward a one-teacher-only system brought some problems in schools and classes reorganisation.

In the past years, class size grew as education budget shrank, the number or certified students included in mainstreaming classes increased, and school resources have been cut.

The major changes and instability occurred in the last 20 years or so, involving a massive school reorganisation: many teachers had to change roles, tasks and responsibilities. Despite little is known about the ways in which teacher identity interacts with reform and policies having a direct impact in their professional experience (Lasky, 2005), the reorganisation of primary schools may had a relevant impact on teacher identities. Many mainstreaming teachers were reassigned, in order to replace absent teachers in different schools, or were reassigned to be support teachers, or to teach the so called "special subjects", such as music or physical education. As a result of meeting the growing demand of schooling for children with SEN, regular teachers turned into support teachers. Without being specifically trained, teachers may be unprepared to adequately teach and asses the achievements of their students. The risk is that many children were integrated in the class without being fully included in the regular activities.

Many teachers, and especially support teachers, do not have a permanent teaching position, therefore continuity of education has been disrupted due to system induced mobility. Rondanini and Capaldo (2013), define teacher profiles as an identity under constant development.

Support teachers may in fact leave for permanent positions as regular classroom teachers after few years of teaching. The loss of expertise has its consequences for many students with disabilities. For example, local authorities try to fill vacant positions, hiring teachers without a specialist qualification (Devecchi, Dettori, Doveston, Sedgwick, & Jament, 2012).

Despite many good practices, the implementation of inclusive education is still struggling with some issues, such as teacher trainings and the quality of teaching, especially regarding support teachers (Pavone, 2007).

The Teaching and Learning International Survey, (OECD, 2013) provided the following main findings for Italy. A high proportion of teachers feel (87% compared to a 71% EU average) they can motivate students who show have interest in school work. However, Italian teachers perceive their status as very low. Compared to an EU average of 19%, only 12% think the teaching profession is valued in society.

Pavone (2007) claimed that despite good practices and positive experiences, there are situation in which the right of education for those students is not fully recognised. Even though Italy actively promoted legislation and policies with the aim of including children with disability in mainstreaming classes, the real question lies on the implementation in the practice.

Tackling inclusive education at classroom level is still a debated issue. An inclusive practice established at policy level is not enough, as many times, it is up to the teachers to translate the policies into classroom setting. Regular teachers and support teachers have to work together in the same setting; this means that they have to communicate, cooperate, sharing their practice and their goals. A support teacher is entitled to provide support not only to the child identified, but to the whole class.

According to Anastasiou et al. (2015), several researchers have been concerned with the collaboration between special education teachers and general education teachers; they assumed that general education teacher tends to delegate the teaching of students with disabilities mainly to support teacher. A qualitative study conducted by Devecchi et al. (2012), confirmed that support teachers may experience a feeling of being a second class members of the teaching staff.

2.2 EDUCATION SYSTEM FOR STUDENTS WITH DISABILITY IN PRIMARY SCHOOL IN SWITZERLAND: A SPECIFIC FOCUS ON INCLUSIVE EDUCATION IN THE CANTON OF TICINO

2.2.1 Addressing diversity and policy framework: the *identification dilemma*

The inclusive versus special setting is an historical debate that has been always present in the Swiss Confederation. The Swiss Confederation is a federal republic composed by 26 cantons, which, especially in education, can be considered as quite independent small states, since the

cantons themselves are independently responsible for their education system. The 26 cantonal ministries of education together form a political body: the Swiss Conference of Cantonal Ministries of Education (EDK, 2007). EDK represents the highest authority of the school administration. Switzerland, as opposite to Italy, does not have a central Ministry of education. Due to the Swiss decentralised bottom-up education system, general and special education may vary significantly between the different cantons. The general education system is very heterogeneous, due to the different social, economic, cultural, and political situation among the 26 cantons. The researcher thus assumes that Switzerland has 26 separate education systems.

Given this fragmentation, with the aim to harmonise compulsory education among the cantons, EDK in 2009 established an inter-cantonal agreement called "Accordo intercantonale sull'armonizzazione della scuola obbligatoria (Concordato HarmoS)" or "Inter-cantonal agreement on the harmonisation of compulsory education". The agreement provides a common guideline for the duration of schooling and for the main tasks that education systems have to perform. The agreement introduced a standard curriculum for some disciplines: local language (German, French, Italian and Romansh), foreign language, mathematics and natural sciences. The cantons differ in the educational services, the programmes provided, the evaluation process, and in the identification of children requiring additional support.

In every canton there are specific diagnostic centres, which have the aim to identify children with special needs.

The Federal Invalidity Insurance Law (Invalidenversicherungsgesetz, IVG), originated in 1959 from article 111 of the Swiss constitution, regulated the federal aspect of special needs education. Until the end of 2007, the Federal Invalidity Insurance Law regulated the identification and co-financing of special needs education for children and youth with disabilities. The national invalidity insurance had therefore a relevant impact on special needs education:

> The Invalidity Insurance helped ensure adequate provision for children with disabilities through direct payments for services (e.g., language therapy), aids (e.g., wheelchair), and financial support for families and children. In addition, it co-financed organizations and associations, providing educational, social, and other services or training staff and professionals working in the respective institutions. (Hollenweger, 2014, p. 248)

At the beginning of 2008 the responsibility for funding special schools was transferred entirely to the cantons. Prior to 2008 the function of financing specialised services for children with disabilities was shared between the Federation and the cantons. Recently, the Federal Constitution delegated the authority and responsibility for the school system mainly to the cantons. Despite the autonomy in the decisions, cantons share a common framework:
Federal Law on Overcoming the Inequalities affecting Handicapped People (LHand, 2004) and the Law on Equal Rights for persons with Disabilities (Bundesgesetzüber die Beseitigung von Benachteiligungenbehinderter Menschen, Behindertengleichstellungsgesetz, BehiG). BehiG was established in 2002; it guarantees the right to be educated for every student and promote the integration of children into mainstreaming classes.
The opportunity to change the old eligibility procedure came as a result of the reform of Reorganisation of Financial Equalisation (RFE) and the repartition of tasks between the Federation and the cantons. Compulsory education is historically a responsibility of the cantons. Since 2008 the cantons became completely responsible for the legal, practical and financial issues to ensure special needs educational entitlements for children with disability. This main change drove to a re-definition of eligibility criteria for providing additional support.

> The cantons mandated their coordinating body, the Swiss Conference of the Cantonal Ministries of Education, to draft an Inter-cantonal Agreement for Special Needs Education which was subsequently agreed upon. The agreement stipulates the development of standards and tools to ensure a coherent and equitable system across the 26 Cantons… The new eligibility procedure is one of these tools and was developed over the last few years. (Hollenweger, 2011, p. 2)

The agreement defined basic standards for all cantons that adhere to it, such as a shared terminology and a standardised eligibility procedure (EDK, 2011). The procedure was implemented starting from January 2011.
Eligibility criteria were previously based on a deficit-oriented approach: children identified as requiring additional support were a priori considered not adequate for mainstreaming classroom. The assessment focused on impairments, it did not consider the functioning of the child and promoted segregation rather than inclusion (Hollenweger, 2011a). The rationale of the eligibility criteria process was therefore based on a mono-dimensional approach.
Starting from 2011, Switzerland has been one of the first countries to adopt a multidimensional, context-based eligibility procedure based on the International Classification

of Functioning, Disability and Health (ICF), and the Children and Youth Version (ICF-CY) (Hollenweger, 2011a; Hollenweger & Moretti, 2012).

According to Hollenweger (2011a), the implementation of a biopsychosocial based procedure provided an opportunity to introduce not only a meaningful and effective instrument but also a new approach to decision-making.

The change from federal to cantonal authority at the beginning of 2008 has been considered a challenge to promote inclusion. Cantons had more flexibility to establish models of schooling that match their demographic and geographic structure, and therefore they had the possibility to develop more inclusive forms of Special Needs Education.

The procedure requires that an assessment service identified by the canton collects information relevant to the diagnosis and share them with the executive committee composed of several professionals with different competence. The framework behind the assessment is based on the ICF-CY (WHO, 2007).

The evaluation of functioning and the assessment of needs represent a very important phase of the procedure. In the evaluation procedure, various information about the child is collected systematically, and the sources of said information are parents and different professionals. The challenge and the aim are to have an agreement between the parties; if this is not possible, the different positions will be clearly described in the report of the procedure. The involvement of parents and teachers in to the process of assessment is therefore fundamental.

With the new provision, the cantons organised their work strategy and service offerings.

The canton of Ticino in particular promoted a reform framework focused on implementing inclusive education. New cantonal legislations have been established, with the aim of improving the quality of the education system for children with Special Educational Needs. Respectively:

- The Law on Special Education of 15 December 2011;
- The Regulation of special pedagogy of 26 June 2012.

The Law on special education of 15 December 2011 aims to guarantee the right to an education for children and youth with special educational needs. At the same time, the law aims to implement and support inclusive education and to integrate people with disabilities into the work force.

2.2.2 The *curriculum dilemma*

As described in paragraph 2.2.1, at the beginning of 2008 the responsibility for funding special schools was transferred entirely to the cantons. Since 2008 the cantons became completely responsible for the legal, practical and financial issues to ensure special needs educational entitlements for children with disability. This main change drove to a re-definition of eligibility criteria for providing additional support.

The decision as to whether a child with special educational needs will attend a regular school or a special school or class is taken with the Standardised Evaluation Procedure (Standardisiertes Abklärungs Verfahren). The SAV records information systematically, provides a comprehensive and multidimensional assessment of the needs of the child, and it focuses on development and educational objectives. It serves the cantons primarily as a decision-making basis for the arrangement of special needs provisions. Similarly to the Italian system, the special educational needs of the child identified then determine how the support is carried out. Children with disability integrated into a mainstream class can have adapted curricula.

Since 2008 The cantons have therefore the authority to organise special needs education and the assessment procedure. They have the right to develop their own curricula, their own procedures in evaluating and providing additional support. In order to avoid discrepancy and fragmentation among the cantons, and with the aim to increase coordinative practices between cantons, EDK established the project "HarmoS". This project aims to "harmonising" the contents of education among the different cantons.

> In 2006, the Swiss voted in favour of an amendment to the federal constitution which demanded that the cantons "harmonize" their education systems to facilitate transfers of children between different cantonal education systems and to guarantee quality of provision. This will partly be achieved through national education goals and a common curricular framework for the German and French speaking cantons respectively. (Hollenweger, 2014, p. 245)

Child with special needs education integrated into a mainstream class can have an adapted curriculum. This individual support plan should be based on a written plan focused on the zone of the proximal development of the child (Vygotsky, 1978) and containing the objectives to be achieved, means and strategies. Teachers are enabled to make adaptations to lesson

planning and the curriculum in order to respond to the needs of children. The Individual Educative Plan can be based on the ICF- CY (WHO, 2007).

2.2.3 The *location dilemma*

The *location dilemma* in the two area of the study presents some relevant differences.
Switzerland and specifically the canton of Ticino implement a mixed form of provision in terms of location.
In Italy, the special educational needs identified during the procedure of assessment do not influence the location of the support as mainstreaming class is embedded at policy level. On the contrary, in the canton of Ticino the decision as to whether a child requiring additional support attends a regular class with the support of a pedagogical support teacher, or rather a special class, is made through the standardised evaluation procedure described previously. The different needs of the individuals are addressed with different locations.
The different types of locations may be summarised in the following three:

- Special class in public school;
- Special schools;
- Mainstreaming classes.

Special classes and special schools may adopt some form of inclusive education. Children could also attend special classes, while at the same time being involved in some activities with mainstreaming.
The Intercantonal Agreement for Special Needs Education specifies that integrative solutions should be preferred over segregation, considering both the development opportunities of the child and the school environment (Article 2(b)).
Ticino is one of the most inclusive cantons of the confederation, since it presents a much lower percentage of students attending special schools (1,6%) if compared with the rest of Switzerland (4,5%) (Dozio, 2001).
The canton of Ticino did not implement the full inclusive system like in Italy. It has instead chosen a differentiated form of inclusion, with different and targeted solutions ranging from inclusive education to special classes or special schools. The researcher assumes that the mono-dimensional location approach promoted by the Italian system, may be viewed from the

stakeholders in the canton of Ticino as a "forced" policy and practice that restrict the educational needs of the child.

Currently in the canton of Ticino there are specific services for children with severe disability or with SEN, with relevant health problems. The canton considered that inclusive classes may not be the most adequate location for addressing the needs of these children. There are for example private foundations or institutes for children with severe disability that provide them with different forms of assistance, both medical-psychological and socio-educational. Some institutes are structured as day care centres, while others offer also the possibility of residency. According to Feuser (2012), isolation and hospitalism, could have a significant impact on the development of the child. The isolation of the child from inclusive environment makes it difficult to experience the challenges of the world and thereby develop oneself. If the development of a child in developmental stages involving certain neural and psychological areas is slowed down by isolation, the whole level of development can be reduced (Feuser, 2012).

The plan for the rest of students with disabilities or Special Educational Needs is to meet their educational needs in special or inclusive education systems.

In Ticino, special schools cover all the orders and grades of compulsory education and may accommodate children according to their categorical diagnostic criteria: learning difficulties, behavioural disorders, etc. The researcher considered that under the same category there might be different spectrum of functioning profiles.

There are actually different forms of special- location- provision:

- Special school within the foundations, the private institutes mentioned above;
- Special schools physically placed in ordinary cantonal public schools. The "physical proximity" is designed to facilitate some form of integration;
- Special classes physically placed in ordinary cantonal public schools. The "physical proximity" is designed to facilitate some forms of integration.

Special classes generally have limited groups of students, a maximum of seven, with a simultaneous presence of two teachers. The curriculum of teachers of special classes requires a university degree with special focus on disability. Teachers have the freedom to take decisions on class management and can build individualised school curricula for their students. The teacher to children ratio is maximum one to four. Special classes meet the needs of certain children considered not capable to attend school in the regular system, for example children with intellectual disability, language disorders, behavioural disorders, learning difficulties, physical disabilities.

In some cases, special classes may do some inclusive activities with regular classes. For example, a child may attend some subjects with the regular class. This form of inclusive education was also investigated in the study.

Children with low incidence disability (behaviour problems, difficulty in attention, specific learning disability, etc...) attend the ordinary classes with the support in the class of support teachers (ST) and individualised pedagogical support teachers (IPST).

Individualised support teachers work in a one to one relationship with the child, they have a fixed number of hours, and have a complementary role with respect to the class teacher. Among the competences of this type of teacher there is the adaptation of the curriculum, and in particular the conformation of it to the resources and the individual needs of the student. They may prepare different materials and, if deemed appropriate, can exonerate the student from following certain subjects (for a maximum of twelve hours per week).

Support teachers provide instead educational support for students identified but having high functioning profile. Those teachers usually work in schools with multiple situations of identified-high-functioning-profile-students and also plan preventive interventions.

In each school complex there is the Pedagogical Support Service (SSP), an institution which aims to prevent and provide support to children with special needs.

The support is provided by different professionals:

- The speech therapist and the psychomotricist: the first provides direct interventions with single students or with small groups of students having difficulties in communication / oral and written language. Psychomotricity focuses on rehabilitation of psychomotor disorders;
- The teacher of pedagogical support, who is responsible for all the students of the school, who require curriculum adaptation;

The competences of Pedagogical Support Service include: the identification of at risk situations, the initial assessment of the difficulties, the definition of a psycho-pedagogical project with the collaboration of teachers and parents.

2.2.4 Teachers and special support teachers working together in the context of inclusive education

The collaboration between teachers and support teachers in the context of inclusive education can be properly understood through the explanation of the different forms of inclusive

education. Those different forms of inclusive education were investigated in the study. Support teachers in Ticino are divided into two groups: pedagogical support teachers and individualised pedagogical support teachers. The profile of pedagogical support teachers is similar to the Italian support teachers, with the exception that they are not responsible for the whole class but for a single child instead.

Pedagogical support teachers usually work with children with non-severe special needs requiring additional support. They make the standard curriculum accessible to the child, and they provide individualised support, even outside the class if required. The collaboration and communication with mainstreaming teachers are very important. Pedagogical support teachers are in the class just for few hours a week, sometimes only for one hour (called didactic unit) a week. This means that sharing information about the child and creating a cooperative planning is very important for meeting the educational needs of the child.

Individualised pedagogical support teachers are teachers who work with very demanding children in term of provision. They spend more hours in the classroom, and they are responsible for a specific child. Whether pedagogical support teachers may face some challenges in sharing information and in bridging cooperative planning due to time restriction, individualised pedagogical support teachers may face other challenges due to time sharing. Sharing the same class setting with another teacher may bring some risks related to all of the work tasks.

The third form of collaboration is among mainstreaming teachers and teachers working in special classes or special schools. Some children attending special schools or special classes may participate in some activities with mainstreaming classes. This collaboration requires a shared conceptualisation of the functioning profile of the child, a common idea about the activity on which the child can participate, and a specific goal.

CHAPTER 3: DESIGN AND METHOD

3.1 RESEARCH DESIGN AND RESEARCH QUESTIONS

This study was designed as a comparative study on the inclusive practices of general and special education teachers in two regions of two different countries: Italy and Switzerland.
The challenge of cross-national comparison arose from the variables chosen, as they required to be comparable in both countries. The researcher chose concepts related to practices of teachers that are interesting and feasible to analyse in both areas.
The concepts investigated are:

- Attitude about roles and responsibilities with the child identified;
- Conceptualisation of disability;
- Programming;
- Teachers sense of self-efficacy.

Explanation of the variables have been provided in Chapter 1; further description will be provided in the next paragraph.
In order to clarify the concepts of the study, the following research questions have been formulated:
RQ1. Is there a relationship between the sense of self-efficacy of the teachers and their attitude about their roles and responsibilities in working with students with disability?

- How do teachers consider their attitudes to roles and responsibilities with their students with disability?
- How do teachers perceive their sense of self-efficacy?

RQ2. Is there a relationship between the conceptualisation of disability and programming of the teachers?

- How do teachers conceptualise the disability of the identified child?
- What teachers do in order to adapt the context to the needs of the students? Eg how do the teachers adapt goal setting, class accommodation, differentiated instructions?

RQ3. What are the similarities and differences between the Lombardy region and the canton of Ticino?

In the study, the following hypotheses have been tested:

Hypothesis RQ1.
The sense of self-efficacy of a teacher is related to the effectiveness of the teacher themselves. Teachers with a high sense of self-efficacy consider themselves as fundamental in the success of their students with disability. They believe to have an impact upon the learning process of the child, and they are very active in individualising their work and their goals. Teachers with a low sense of self-efficacy consider their role marginal to the learning process of the student and they do not make relevant efforts to accommodate the child and to adapt standard goals.

Hypothesis RQ2.
Teachers who consider the learning problem of the students as an interaction between their difficulties and the learning context tend to set individual goals, adapt the class, and provide different instructions. On the other side, teachers who consider the child as the one "lacking", and perceive problems a child meet in the learning process as something static, may use standard provision.

The concept behind the research questions and the research design derived from the research of Jordan, Schwartz, and McGhie-Richmond (2009); Jordan and Stanovich (2001); Stanovich and Jordan (1998); Tschannen-Moran and Woolfolk Hoy (2001, 2007) and Engeström (2001, 2008).
A mixed of qualitative and quantitative approaches were considered most appropriate to collect data for the study, due to the multiple and different variables investigated in the research.

3.2 INSTRUMENTS

The instruments used in this study were an adapted version of the Pathognomonic–Interventionist (P–I) Interview (Jordan, Schwartz, & McGhie-Richmond, 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998), the Teacher Sense of Efficacy Scale (TSE) Long Form questionnaire developed by Tschannen-Moran and Woolfolk Hoy (2001, 2007), and The Activity Theory framework (Engeström, 2001, 2008).

The study investigates different variables divided in four areas (Table 2):

- Attitude about roles and responsibilities;
- Conceptualisation of disability;
- Programming;
- Sense of self-efficacy.

Variables	Tools	Method of analysis
Attitude about roles and responsibilities toward the child. Subscale: • Assessment; • Programming; -Goals and Objectives; -Organisation and Teaching Techniques; • Reviewing; • Communicating with staff: • Communicating with parents	Adapted version of the Pathognomonic–Interventionist (P–I) Interview (Jordan et al., 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998)	Global
Conceptualisation of disability	Adapted version of the Pathognomonic–Interventionist (P–I) Interview (Jordan et al., 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998)	Subscale
Programming	Adapted version of the Pathognomonic–Interventionist (P–I) Interview (Jordan et al., 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998). The Activity Theory framework Engeström (2001, 2008).	Subscale
Teachers sense of Self-efficacy Subscale: • Efficacy for Instructional Strategies; • Efficacy for Classroom Management; • Efficacy for Student Engagement	Teacher Sense of Efficacy Scale (TSE) Long Form questionnaire developed by Tschannen-Moran and Woolfolk Hoy (2001, 2007)	Global and subscale

Table 2: Variables and tools

The Pathognomonic–Interventionist (P–I) Interview

The tool used for measuring the attitude of teachers about their role and responsibility for working with students with disabilities is the Pathognomonic–Interventionist (P–I) Interview (Jordan et al., 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998).

Jordan and Stanovich (2001) demonstrated that the attitude of teachers can be assessed reliably and validly along a continuum through a semi-structured narrative interview format. At the opposite of the continuum there is a "pathognomonic" (PATH) perspectives; teachers falling under PATH perspective focus on pathological and fixed characteristics of the student. At the other end teachers with "interventionist" (INT) perspectives consider the student in terms of how best they learn (Jordan & Stanovich, 2004). According to Jordan et al. (2009) teachers with a more "pathognomonic" perspectives tend to attribute to their students with disability internal and fixed characteristics that are considered beyond the expertise of the teachers, and therefore beyond the support teachers can provide. Those teachers may therefore consider their role as marginal to the learning process of the student and they are not very active in meeting the needs of a child.

In contrast, teachers with "interventionist" concept have a more biopsychosocial understanding of disability, and therefore consider themselves as a relevant factor, having an impact in the learning process of the child. Those teachers are more active in reducing the barriers and in meeting the different needs of their students with disability.

The interview aims to assess the attitude of teachers with regard to students with disability and about their role and responsibility about working with them. It elicits attitudes through self-reports on the behaviour of teachers in their daily work (Jordan-Wilson & Silverman, 1991).

> In a sense, it elicits what might be termed "grounded" attitudes: attitudes that, if they are to represent a convincing response in the interview, must somehow be attached to behaviors and classroom decisions that the teacher can discuss in an articulate manner.
> (Stanovich & Jordan, 1998, p. 231)

In the interview, teachers are asked to describe their practices with students with disability in their classrooms across five areas (Stanovich & Jordan, 1998):

1. **Assessment** covers the informal assessments and the gathering of information from previous teachers;

2. **Programming** includes adapting and individualising goals and curriculum, making accommodations both to the classroom and to teaching techniques, and monitoring student progress with regard to goals and curriculum;
3. **Review** explores the sort of involvement the teacher has with the class-team and the method the teacher uses to monitor the progress of the student;
4. **Communication with staff** covers the way the teacher works with the staff;
5. **Communication with parents** involves the frequency and when the teacher communicates with parents, and whether or not they coordinate the reporting to the parents with the rest of the team.

The interviewer has a list of target questions with follow-up probes. The scale aims to assess the interventionist perspective of teachers on each of the five topics: assessment, programming, review, communication with staff, and communication with parents.

The interview last for about one hour; it is tape recorded and later transcribed for analysis.

In the original version, teachers describe their work with two types of students: identified and at risk.

This study focuses instead only on identified children, since the concepts chosen by the researcher have to be comparable in both countries, and in the canton of Ticino the percentage of children at risk was negligible, and therefore not suitable for the study.

The interview has been reported in several studies, with good internal construct validity and reliability among scorers (Jordan & Stanovich, 2001, 2003).

The interview transcript is coded using a coding form based on 15 items scored on a 3-points Likert scale. In the original scale low scores (1) reflect a more Pathognomonic perspective while high scores (3) reflect a more Interventionist perspective. Mid-range score (2) are classified as middle perspective.

In the current study the researcher maintained the concept of teacher attitude as positioned along a continuum, but renamed the label “Pathognomonic-Interventionist Beliefs” with the broad concept of *interventionist teaching approach*. Pathognomonic perspective was replaced with “low interventionist approach”, Mid was replaced with “middle interventionist approach”, and Interventionist perspective was replaced with “high interventionist approach”.

The interview has been previously adapted and translated into the language shared by the two countries and tested in a pilot study.

Activity Theory

Four additional questions have been added to the original Pathognomonic-Interventionist interview form (Jordan et al., 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998) using as a rationale the model of Engeström (2001, 2008). The purpose was to further investigate one of the objects of the area of "Programming": goal setting.

The researcher aimed to have a better understanding of the process of goal setting in the two areas of the study.

The Activity Theory framework (Engeström, 2001, 2008) has been used to disaggregated different mediating factors that influence the process of goal setting: tools, rules, community and labour division (table 3).

Component of model	Representation in the study
Subject	Teachers
Object	Goal setting
Tools	Information about tools for goal setting (eg Individual Educative Plan)
Rules	Information about rules, policies or legislation for goal setting and IEP
Community	Information about the professionals responsible for goal setting
Division of labour	Sharing responsibilities in setting goals: who does what

Table 3: Activity of goal setting, mediating factors

The additional questions focused on: tools for goal setting, team and responsibilities, policies and legislation. The questions explored whether for Individual Educative Plan teachers used formal established tools, informal tools, or rather a mixed methodology, and if there are policies or legislation beyond tools for goal setting. The researcher also asked information about the professionals involved in the process of goal setting and the division of roles.

The interview transcript was coded using the original coding form based on a 3-points Likert scale. Thematic analysis was considered more appropriate for analysing the additional four

questions. The questions were used as a thematic framework for the data analysis. Further information will be provided in the paragraph 3.6, dedicated to data analysis.

Teacher Sense of Efficacy Scale (TSE) Long Form questionnaire

The sense of self-efficacy has been measured using the Teacher Sense of Efficacy Scale (TSE) Long Form questionnaire developed by Tschannen-Moran & Woolfolk Hoy (2001, 2007). The tool does not want to assess the proficiency of teachers, but it rather focuses on how capable teachers believe themselves to be (Tschannen-Moran et al., 1998).

The TSE asks teachers to assess their capability in three area: instructional strategies, classroom management and student engagement. The tool is a self-report questionnaire. The measures consist of 24 items assessed along a 9-point continuum with five anchors. The range example is: A great deal = 9, Quite a bit = 7, Some Influence = 5, Very little = 3, Nothing = 1 (Tschannen-Moran & Woolfolk Hoy, 2001).

The scale includes three subscales, of 8 items each:

- Efficacy for Instructional Strategies;
- Efficacy for Classroom Management;
- Efficacy for Student Engagement.

The concept behind the constructs are described below:

> Classroom management includes techniques that present and use question strategies that will maintain the groups' attention and responsibility while managing the class. Instructional strategies are an educator's techniques that support independent thinking, creativity with teaching, strategic methods for assessment. Student engagement is the ability of the educator to encourage the student to value learning and motivate an atmosphere of learning. (Tschannen-Moran & Johnson, 2011, p. 759)

The questionnaire proved itself to be reliable in different previous studies: reliabilities for the full scale ranged from .92 to .95 (Tschannen-Moran & Woolfolk Hoy, 2001), while reliabilities for the subscale ranged 0.82 for *engagement*, 0.81 for *instructions*, and 0.72 for *management* (Tschannen-Moran & Woolfolk Hoy, 2001).

This measurement represents a stable factor structure that assesses a range of capabilities that teachers consider significant in their work (Tschannen-Moran et al., 1998). The instructions require teachers to respond to each of the 24 questions by considering the combination of

"his/her current ability, resources, and opportunity to do each of the following in your present position." (Tschannen-Moran & Woolfolk Hoy, 2007, p. 948).
The tool has been adapted and translated into the language shared by the two countries; a pilot study tested the applicability of the tool.

3.2.1 Translation and pilot testing

A pilot study has been conducted before the main research study. The aim was to pre-test the adequacy of the research instruments and to assess the feasibility of the main study.
The Pathognomonic-Interventionist semi structured Interview (Jordan, Schwartz, & McGhie-Richmond, 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998) and the Teacher Sense of Efficacy Scale (TSE) Long Form questionnaire (Tschannen-Moran & Woolfolk Hoy, 2001, 2007) have been translated into Italian, which is the language of the region of Italy and the canton of Switzerland. The contents were adapted to the educational context of the two countries. The aim was to provide an adapted version of the original instruments that is conceptually equivalent in the different countries. The translator focused on the definition of terms and contents, avoiding a word- for- ford or literal translation.
The tools have been therefore pre-tested in order to check two main issues:

- Language;
- Adaption of the contents with respect to the different socio-cultural background of the two countries.

The model of Engeström (2001, 2008) has been originally pre-tested for all the five working situations investigated in the adapted version of the Pathognomonic–Interventionist (P–I) Interview (Jordan et al., 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998). Based on the results collected in the trial phase, the author decided to apply the model only to the area of Programming, and in the specific in the activity of goal setting.
The teachers included in the pilot study were five. For Italy: one mainstreaming teacher, one support teacher, and a teacher skilled in both roles. For the canton of Switzerland: one mainstreaming teacher and one pedagogical support teacher.
The interview with pilot teachers has been conducted in the same way as it was administered in the main study. After the interview teachers were asked to provide feedback to identify biases and difficult questions.

The questionnaire was sent by e-mail, after the interview, with additional questions added to the pilot study only, and afterwards removed for the main study. The questions were mainly focused on the comprehension of the contents of the 24 items. Also, for the questionnaire the researcher asked teachers for feedback about ambiguous and difficult questions.

During the pilot-study the researcher set a meeting with the ministry of special education of the Swiss canton and the Italian local person responsible of inclusive education. Both the stakeholder provided relevant contextual information about the school system of their countries.

The pilot study demonstrated the feasibility of the instruments, but it showed that the research tools needed to be adapted according to the feedback provided by teachers and stakeholders.

3.3 DATA COLLECTION

The data collection was conducted during the 2012/2013 school year within a four months window, between February and May 2013.

Permission to conduct the study was prior asked and obtained from the ministry of special education in the canton of Switzerland and the local responsible of inclusive education in the region of Italy. The researcher ensured that the data collection did not interfere with school activities. In the canton of Ticino, after permission was obtained, a request for involvement and an information sheet of the project was sent by the ministry of special education to the potential participants teachers. In Lombardy the local person responsible to inclusive education sent the same documents to principals of potential schools. Teachers who expressed their willingness to participated were contacted to schedule the data collection.

Data were collected using qualitative and quantitative approaches: semi structured interview and questionnaire. The mixed of qualitative and quantitative approaches provided two types of data source which referred to the same case. Teachers belonging to the same class-team were interviewed separately using an adapted version of the Pathognomonic-Interventionist individual one-to-one basis semi structured Interview (Jordan, Kircaali-Iftar, & Diamond, 1993; Jordan-Wilson & Silverman, 1991). During the interview, teachers and SET were asked to describe their daily practice with a child with disability (the same child for the same team) in different activities.

The flexible framework of a semi-structured interview required that every teacher got the same key questions asked. However, according to the perception of the interviewer about what was most appropriate, there was flexibility both in how the questions were asked, and in which order.

All the interviews have been audio recorded. The day of the interview has been fixed respecting teacher timetables. Each interview lasted for about one hour. The researcher wrote short memos both during and following each interview. The aim of writing memos was to record potential biases or missing information, interesting points that emerged from the interview and serve for the data analysis. After the interview, the researcher provided teachers with the questionnaire, in a paper-based or electronic form, and the teachers had 10 days to complete the questionnaire and return it. Each teacher and school were given a pseudonym, and original names were not audio-recorded. The data collected were kept confidential and private.

Four university students helped in collecting the data in the region of Italy. The students have been trained before the data collection.

The interview presented in Appendix 1 corresponds to the final version used. The interview was adapted and refined during the pilot study.

3.4 RESEARCH ETHICS

When conducting the study, there are many ethical requirements that have been taken into account. As Alderson and Morrow (2004) point out, a purpose of ethical issue is balancing the potential risks of research with the expected benefits.

Prior to starting data collection, a request for involvement in the study was circulated to the potential school principals through the local person responsible of inclusive education in the region of Italy. In the canton of Ticino, the ministry of education sent the information sheet directly to teachers and schools. The document provided information relevant for them to make a decision about participating or not in the study. The potential participants were made aware of the fact that, if they so wished, they could at any point drop out of the study.

The document described:

- Background of the research with all the relevant information, such as the goal of the study, methods etc.;

- The demand of involvement of participants;
- Information about data confidentiality;
- Information about the possibility to drop out of the research.

In addition, in every school selected in Lombardy, the researcher scheduled a meeting with the principals of the schools in order to formally present the project.
Direct contact only involved teachers, as children were not interviewed. Despite that, sensitive and personal data regarding children with disability may have been divulged during the interviews (eg diagnosis, gender, ethnic group, etc…). Therefore, the researcher applied the primary method used to preserve anonymity and confidentiality (Crow & Wiles, 2008): pseudonyms were used both for participants and for the location. Schools, teachers, and students were attributed pseudonyms taken from the world of art and literature, such as Picasso, van Gogh, Leopardi etc…. The pseudonyms also helped teachers in feeling more comfortable when they were providing information about the children during the interview.
Both the audio-recordings and the transcriptions such as the questionnaire were stored and saved on a password protected computer and were uploaded on cloud storage files to a password protected online file storage system (eg Google documents and iCloud) to back up the files.
The requirement to process data fairly and lawfully has been respected and the data have been used solely for research purposes, and not for any other purposes.

3.5 SAMPLE

The sample size of the study was 119 teachers working in primary schools.
Participants to the study were recruited from three school districts in Italy and different school districts in Switzerland. All schools selected were primary schools.
Primary school teachers working in the same team were asked to participate in the study in the Lombardy region and the canton of Ticino. They have been asked to complete a questionnaire for exploring their sense of self-efficacy and they were interviewed with the intention of investigating their attitude about roles and responsibilities in working with students labelled as disabled by the legislation. The list of schools was obtained from the

ministry of special education in the canton of Ticino, and the local responsible of inclusive education in the Lombardy region.

The researcher selected the participants of the study using a stratified random sampling. Stratified random sampling is a method that involves the division of a population into smaller and homogeneous groups called strata. Random samples were then selected from each stratum. Criteria for selecting the sampling included primary school classes with at least one child identified as disabled according the legislation. Classes with at least one mainstreaming teacher and one special educational teacher working together as a team were potentially included in the sampling. Schools were also selected according to area: urban, suburban and rural. The purpose was to attempt to capture possible variations related to the context, for example in terms of provision and practices.

In Italy the form of inclusion embraced is mainly one: the child is included in the mainstreaming class with the support of a support teacher. In the canton of Ticino there are three different forms of inclusion. Two are similar to the Italian system: the child is included in the class, but according to their functioning profile, the support can be provided by two different types of teachers, ie the pedagogical support teachers, and the individualised pedagogical support teacher. The third form of inclusion is a collaboration between mainstreaming teacher and special teacher in the case of a child attending a special school or a special class, but participating to some activities with the regular class.

The teachers-teams in the two contexts of the study are different. In Italy, the teams were based on three teachers: teacher of humanistic subjects, teacher teaching math and science subjects, and support teacher. Those teachers are the prevalent teachers in the class. There are also teachers teaching physical education, English, religion, but were not included in the study as they spend less time with the class.

In the canton of Ticino, class-teams were based on two types of teachers: one mainstreaming teacher and one among pedagogical support teacher, individualised pedagogical support teacher, or teacher teaching in special classes.

The participants were 119 teachers in total. Of the 119 participants in the study, 63 were from the region of Italy and 56 from the canton of Switzerland. Hence, there were more Italian teachers than Swiss teachers in the sample, due to the different composition of the team in the two countries explained above. Table 4 shows the sample details.

	Total	*Lombardy*	*%*	*Ticino*	*%*
Teachers	*119*	*63*	*53*	*56*	*47*
	Total	*Lombardy*	*%*	*Ticino*	*%*
Team	*48*	*21*	*44*	*28*	*56*
	Total	*Lombardy*	*%*	*Ticino*	*%*
Schools	*30*	*10*	*33*	*20*	*67*

Table 4: Study sample

In Lombardy region, a total of 63 teachers participated in the study. Teachers were part of 21 teams located in 10 different schools.

Teacher of humanistic subjects were 21, teachers teaching math and science subjects were 21, and support teachers were 21 (Table 5).

	N	***%***
Teacher of humanistic subjects	*21*	*33,3*
Teacher of scientific subjects	*21*	*33,3*
Support teacher	*21*	*33,3*
Total	*63*	*100,0*

Table 5: Teachers sample in Lombardy region

In the canton of Ticino, a total of 56 teachers and 28 teams participated in the study. The schools involved were 20. In every team involved there was a mainstreaming teacher. The different types of inclusive education (Table 6) were represented by pedagogical support teachers (*N*= 9), individualised pedagogical support teachers (*N*= 7) and teachers of special classes (*N*= 12).

	N	***%***
Mainstreaming teacher	*28*	*50,0*
Pedagogical support teacher	*9*	*16,1*
Individualised pedagogical support teacher	*7*	*12,5*
Teacher of special class	*12*	*21,4*
Total	*56*	*100,0*

Table 6: Teachers sample in the canton of Ticino

A detailed description of the participant will be presented in Chapter 4.

3.6 DATA ANALYSIS

The audio-recorded interview data were transcribed in Microsoft word by the research team and then imported into MAXQDA 12, which is a professional software for qualitative e mixed methods research. The interview transcripts were coded using an adapted version of the Pathognomonic-Interventionist coding form, based on a three-points Likert scale (Jordan, Kircaali-Iftar, & Diamond, 1993; Jordan-Wilson & Silverman, 1991).

What follows is an example about the area of "Programming", in the specific: "Organisation and Teaching Techniques".

Item 9.

1 The teacher does not do anything special to accommodate integrated students into the

classroom (eg flexible groupings, peer pairings or classroom layout).
2
3 The teacher uses modifications to accommodate integrated students into the classroom (eg flexible grouping, peer pairings, or classroom layout).
4 N/A

Item 10.
1 The teacher does not adapt teaching techniques (eg peer tutoring, cooperative learning, or individualised program packages) to accommodate differences among students.
2
3 The teacher adapts teaching techniques (eg peer tutoring, cooperative learning, or individualised program packages) to accommodate differences among students
4 N/A

For each of the 15 items of the interview, a rating of "interventionist teaching approach" was scored as 3, a rating of “middle” was scored as 2, and a rating of “low” was scored as 1. If an item was not applicable was scored as 4 and dropped from the analysis.
The four additional questions added to the original Pathognomonic-Interventionist interview form, using as a rationale the model of Engeström (2001, 2008), have been coded differently. Thematic analysis was considered more appropriate for analysing the contents provided. The four questions were used as a thematic framework for the data analysis. For example, the question “Are there any rules, national, regional, local, school guidelines for completing the Individual Educative Plan and setting the goals?” was captured by three themes: “Formal established tool”, “informal tool” and “mixed approach”.
The researcher then analysed the answers provided by the interviewee using a traditional content analysis based on selected categories. In a first phase, the written interviews have been read without sorting or coding the text. In a second phase, the relevant text was coded with MAXQDA 12 according to the category system. The coding process was done according to units of meaning, based on thematic classification of the context.
The interrater reliability agreement for the interview was obtained by correlating the overall scores, given independently by the five raters for the 35 teacher interviews, and was +.81. After the interview analysis the interview data have been imported to SPSS, statistics version 24, which is a software for analyzing data and running statistical tests.

The questionnaire has been converted to an Excel file and then imported in SPSS. The metrics consist of 24 items, assessed along a 9-point continuum (where 1-Nothing, and 9-A Great Deal) with five anchors.

The research questions were used as a guideline for the data analysis.

The first research question:

"Is there a relationship between the sense of self-efficacy of the teachers and their attitude about their roles and responsibilities in working with students with disability?

- How do teachers consider their attitudes to roles and responsibilities with their students with disability?
- How do teachers perceive their sense of self-efficacy?"

was answered through 35 variables, of which 11 specifically derived from the interview, and 24 from the questionnaire.

The second research question:

"Is there a relationship between the conceptualisation of disability and programming of the teachers?

- How do teachers conceptualise the disability of the identified child?
- What do teachers do in order to adapt the context to the needs of the students? Eg how do the teachers adapt goal setting, class accommodation, differentiated instructions?"

has been addressed through the interviews.

Frequency distributions, number and percentage of each occurrence was presented for the variables under study:

- Frequency and the distribution of the interview scores was calculated for each item and subscale of the interview;
- Frequency and distribution of the interview scores was calculated for each teacher subgroup;
- Frequency and the distribution of the interview scores was calculated for the subgroup "year of experience";
- Thematic analysis of the four additional questions has been done;
- Arithmetic mean of the 3 subscales was calculated for the questionnaire;
- Arithmetic mean of the 3 subscales of the questionnaire was calculated for each teacher subgroups;

- Arithmetic mean of the 3 subscales of the questionnaire was calculated for the subgroup “years of experience”.

The researcher further investigated the correlation among the 3 teachers with the lowest and highest cumulative score of the interview and the questionnaire, and the specific diagnosis of the child.

Spearman’s correlation was used to describe the relationship between the units of analysis. The design adopted permitted an examination and comparison of the different variables

The findings are here organised according to the areas of the study and to the research questions to be answered, while a paragraph is dedicated to the Lombardy region and the canton of Ticino.

CHAPTER 4: RESULTS

The aim of this study was to examine the attitude of teachers about roles and responsibilities with children identified, and their sense of self-efficacy, within different form of inclusive educations in Lombardy and in the canton of Ticino. The data collection has been conducted with the help of the teaching staff using both quantitative (ie questionnaire) and qualitative (ie interview) methods.

Three tools were used for this study: the first was an adapted version of the Pathognomonic-Interventionist interview (Jordan, Schwartz, & McGhie-Richmond, 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998), developed to elicit teacher attitudes in their daily school practice through a self-reporting procedure of teaching work efforts with students with disabilities. The second tool was the four questions added to the original interview form, using as a rationale the model of Engeström (2001, 2008). Finally, the third tool was the Teacher Efficacy Scale (TES) (Tschannen-Moran & Woolfolk Hoy, 2001, 2007), a questionnaire which measured the personal level of self-efficacy of teachers.

All the tools were developed by professional researchers and have been proved in several previous studies to be both valid and reliable.

A correlative quantitative design was considered appropriate. Correlations have been identified between the research variables, namely attitude about roles and responsibilities and self-efficacy, and conceptualisation of disability and programming. In total the combined tools included 15 questions derived from the interview and 24 from the questionnaire. Demographic data such as age and gender were also collected. In addition, information related to practices of inclusive education, such as whether the support of the identified child was provided inside or outside the class, was also gathered from the teachers. The methods used for the scoring of each tool will also be presented.

Data were collected from 119 teachers in order to investigate the concepts aligned with the research questions. This chapter presents the results from the data collection process, and it presents answers to the research questions based on the findings.

To answer RQ1: “Is there a relationship between the sense of self-efficacy of the teachers and their attitude about their roles and responsibilities in working with students with disability?”, data from the Pathognomonic–Interventionist (P–I) Interview and the TES questionnaire were compared and analysed with the data analysis process described below.

To answer RQ2: “Is there a relationship between the conceptualisation of disability and programming of the teachers?”, data from the Pathognomonic–Interventionist (P–I) interview subscale was compared and analysed with the data analysis process described below.

4.1 DESCRIPTION OF THE SAMPLE IN THE LOMBARDY REGION

In total, 63 teachers from the Lombardy region participated in the study. Teachers were part of 21 team located in 10 different schools.
There were 21 teachers of humanistic subjects, 21 teachers of maths and science subjects, and 21 support teachers (Table 7).

	N	*%*
Teachers of humanistic subjects	*21*	*33,3*
Teachers of scientific subjects	*21*	*33,3*
Support teachers	*21*	*33,3*
Total	*63*	*100*

Table 7: Teachers sample in the Lombardy region

A detailed description of the participant is presented in Table 8. Female teachers represent the 96,8% (*N*= 61) of the sample. The number of teachers aged 41-50 represent the 25,40% of the whole population, teachers aged 51-60 represent the 20,63% of the population, and teachers aged 20-30 only represent the 19,05% of the population. To draw a picture of the background of the teachers in terms of their teaching careers, respondents were asked to report their years of experience. Most had been teaching for more than 10 years (*N* = 42, 66,66%). Of the 63 participants, *N*= 28 (44,4%) had earned a Master’s degree.

	N	*%*
Gender		
Male	*2*	*3,2*
Female	*61*	*96,8*
Age		
20-30	*12*	*19,05*
31-40	*19*	*30,16*
41-50	*16*	*25,40*
51-60	*13*	*20,63*
61-65	*3*	*4,76*
Years of experience		
1-5	*9*	*14,29*
6-10	*12*	*19,05*
11-15	*7*	*11,11*
16-20	*13*	*20,63*
21-25	*5*	*7,94*
26-30	*4*	*6,35*
>30	*13*	*20,63*
Educational qualification		
Upper secondary	*28*	*44,4*
Bachelor's or equivalent level	*7*	*11,2*
Master's or equivalent level	*28*	*44,4*

Table 8: Distribution of teachers by gender, age, experience, educational qualification

The interviews investigated the attitudes of the teachers about students with disabilities and their roles in meeting the educational needs of those students. Table 9 presents detailed information about the students. The number of students is coherent with the team numbers, which is 21, since every team was interviewed on the same child.

	N	*%*
Gender		
Male	*13*	*61,90*
Female	*8*	*38,10*
Diagnosis		
Neurodevelopmental disorders	*17*	*80,95*
Schizophrenia spectrum and other psychotic disorders	*4*	*19,05*
Age		
6-8	*3*	*14,29*
9-11	*17*	*80,95*
12-15	*1*	*4,76*
Nationality		
Italian	*13*	*61,90*
Other nationalities	*8*	*38,10*

Table 9: Distribution of identified children by gender, diagnosis, age, nationality

Male students represent the 61,90% (*N= 13*) of children population, most children were aged from 9 to 11 years (*N*=17, 80,95%). All children selected were identified as having a disability by the national legislation, Law n. 104/1992. The diagnoses were grouped according to the criteria of the Diagnostic and Statistical Manual of Mental Disorders (DSM–5) (American Psychiatric Association, 2013). Most children, 80,95% (*N=17),* had a neurodevelopmental disorder.

Support teachers also provided background information on their current weekly amount of individualised hours with the child identified. Most of the support teachers (*N*= 9) reported to have 11-15 individualised hours with the student with disability. Table 10 describes the results.

		N	*%*
	6-10 hours	*4*	*19,0*
	11-15 hours	*9*	*42,9*
	16-20 hours	*5*	*23,8*
	21-25 hours	*2*	*9,5*
	26-30 hours	*1*	*4,8*
	Total	*21*	*100,0*

Table 10: Current weekly amount of individualised hours of the support teachers with the child identified

The 10 schools (Table 11) involved in the study were mainly located in urban agglomeration (*N=13).*

	N	*%*
Urban	*13*	*61,9*
Suburban	*6*	*28,6*
Rural	*2*	*9,5*
Total	*21*	*100,0*

Table 11: Distribution of schools by areas in Lombardy region

4.2 DESCRIPTION OF THE SAMPLE IN THE CANTON OF TICINO

In total 56 teachers and 28 teams participated in the study. The schools involved were 20. In every team involved there was a mainstreaming teacher. The different form of inclusive education (Table 12) were represented by pedagogical support teachers (*N*= 9), individualised pedagogical support teachers (*N*= 7), and teachers of special classes (*N*= 12).

	N	***%***
Mainstreaming teacher	*28*	*50,0*
Pedagogical support teacher	*9*	*16,1*
Individualised pedagogical support teacher	*7*	*12,5*
Teacher of special class	*12*	*21,4*
Total	*56*	*100,0*

Table 12: Teachers sample in the canton of Ticino

A detailed description of the participant is presented in Table 13. Female teachers represent the 69,64% (*N*= 39) of the sample. The number of teachers aged 51-60 represent 33,93% (*N*= 19) of the whole population, while teachers aged 61-65 only represent 1,79% of the population (*N*= 1). In terms of their teaching careers, most teachers had been teaching for more than 30 years (*N* = 16, 28,57%). Of the 56 participants, *N*= 24 (42,85%) had earned a Bachelor's degree.

	N	*%*
Gender		
Male	*17*	*30,36*
Female	*39*	*69,64*
Age		
20-30	*7*	*12,50*
31-40	*13*	*23,21*
41-50	*16*	*28,57*
51-60	*19*	*33,93*
61-65	*1*	*1,79*
Years of experience		
1-5	*7*	*12,50*
6-10	*7*	*12,50*
11-15	*5*	*8,9*
16-20	*5*	*8,93*
21-25	*9*	*16,07*
26-30	*7*	*12,50*
>30	*16*	*28,57*
Educational qualification		
Upper secondary	*15*	*26,79*
Bachelor's or equivalent level	*24*	*42,85*
Master's or equivalent level	*14*	*25,0*
Other	*3*	*5,36*

Table 13: Distribution of teachers by gender, age, experience, educational qualification

The interviews investigated teacher attitudes about students with disabilities and their roles in meeting the educational needs of those students.

Table 14 presents detailed information about the students. The number of students is coherent with the team numbers, which is 28, as every team was interviewed on the same child.

	N	*%*
Gender		
Male	*16*	*57,1*
Female	*12*	*42,9*
Diagnosis		
Neurodevelopmental disorders	*27*	*96,43*
Disruptive, impulse-control, and conduct disorders	*1*	*3,57*
Age		
6-8	*7*	*25,0*
9-11	*13*	*46,43*
12-15	*8*	*28,57*
Nationality		
Swiss (canton of Ticino)	*10*	*35,71*
Other nationalities	*18*	*64,29*

Table 14: Distribution of identified children by gender, diagnosis, age, nationality

Male represents the 57,1% (*N*= 16) of the children population. Children aged from 9 to 11 years were the majority (*N*=13, 46,43%).

The diagnosis and the medical information provided have been grouped according to the criteria of the Diagnostic and Statistical Manual of Mental Disorders (DSM–5) (American Psychiatric Association, 2013). Most children had a neurodevelopmental disorder: 96,43 % (*N=27).*

Regarding the weekly hours with the child identified. The majority of Pedagogical support teachers (*N=8*) reported to have 1-5 individualised hours with the child with disability. Only one PST reported to have 6-10 individualised hours with the child identified.

Individualised pedagogical support teachers (IPST) reported to have a major amount of hours: 1-5 individualised hours (*N=2* IPST*),* 6-10 individualised hours (*N=2* IPST*)*, 11-15 individualised hours (*N=1* IPST*),* 16-20 individualised hours (*N=2* IPST).

The 20 schools (Table 15) involved were mainly located in suburban agglomeration (*N=8)* and rural areas *(N*= 9).

		N	*%*
	Urban	*3*	*15*
	Suburban	*8*	*40*
	Rural	*9*	*45*
	Totale	*20*	*100*

Table 15: Distribution of schools by areas in the canton of Ticino

4.3 ANALYSIS OF RESEARCH QUESTION ONE: LOMBARDY REGION

The first research question was the following:

"Is there a relationship between the sense of self-efficacy of the teachers and their attitude about their roles and responsibilities in working with students with disability?

- How do teachers consider their attitudes to roles and responsibilities with their students with disability?
- How do teachers perceive their sense of self-efficacy?"

Research question 1 was addressed through the Pathognomonic-Interventionist interview (Jordan, Schwartz, & McGhie-Richmond, 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998) and the Teacher Efficacy Scale (TES) (Tschannen-Moran & Woolfolk Hoy, 2001, 2007), questionnaire, which consisted of a total of 39 items (Table 16).

Variables	Tools
Global: Attitude about Roles and responsibilities with the child identified Subscale Assessment: - Searching information; - View of the problem Programming: - Goals and Objectives: o Monitoring; o Setting Objectives; - Organisation and Teaching Techniques; - Accommodation Communicating with staff: - Cooperative planning; - Transferring information Communicating with parents: - Contact parents; - Report to parents	Adapted version of the Pathognomonic–Interventionist (P–I) Interview (Jordan, Schwartz, & McGhie-Richmond, 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998)
Global: Teachers sense of Self-efficacy Subscale: - Efficacy for Instructional Strategies; - Efficacy for Classroom Management; - Efficacy for Student Engagement	Teacher Sense of Efficacy Scale (TSE) Long Form questionnaire developed by Tschannen-Moran & Woolfolk Hoy (2001, 2007)

Table 16: Variables and tools of the study

Attitude about the role of the teachers and their responsibilities in working with students with disability: interventionist teaching approach

Both the adapted version of Pathognomonic-Interventionist interview and the questionnaire consisted of ordinal scale data, which were correlated through the use of non-parametric test (Creswell, 2009).

The interview has been used to investigate attitudes toward roles and responsibilities in working with student with disability. It collects the level of interventionist approach of teachers on each target: 11 items. For each of the 11 items of the interview, a rating of *High interventionist teaching approach* was scored as 3, a rating of *Middle* was scored as 2, and a rating of *Low* was scored as 1. Table 17 shows the frequency and the distribution of the scores in each item. Low composite scores reflect a low interventionist approach, while high scores reflect a high interventionist approach. The teachers interviewed were 63.

Overall the percentage of "Low" rating is 4,2%, the percentage of "Middle" rating is 25,1%, while the percentage of "High" rating is 70,7%.

Total teachers Lombardy region= 63		**Interventionist teaching approach**					
	Item description	**Low**		**Middle**		**High**	
		1	**%**	**2**	**%**	**3**	**%**
Assessment	*Assessment, view of the problem*	*5*	*7,9*	*22*	*34,9*	*36*	*57,2*
	Relies on information	*4*	*6,3*	*15*	*23,8*	*44*	*69,9*
Programming	*Goals and objectives monitoring*	*4*	*6,3*	*13*	*20,6*	*46*	*73,1*
	Setting individual objectives	*1*	*1,6*	*18*	*28,6*	*44*	*69,8*
	Class accommodation	*5*	*7,9*	*22*	*34,9*	*36*	*57,2*
	Teaching techniques	*0*	*0*	*16*	*25,4*	*47*	*74,6*
Reviewing	*Child monitoring*	*2*	*3,2*	*16*	*25,4*	*45*	*71,4*
Communication with staff	*Staff cooperative planning*	*0*	*0*	*16*	*25,4*	*47*	*74,6*
	Staff transferring information	*0*	*0*	*6*	*9,5*	*57*	*90,5*
Communication with parents	*Teachers contact parents*	*6*	*9,5*	*23*	*36,5*	*34*	*54,0*
	Teacher report to parents	*2*	*3,2*	*7*	*11,1*	*54*	*85,7*
	Total	*29*	*4,2%*	*174*	*25,1%*	*490*	*70,7%*

Table 17: Frequency and the distribution of the interview scores in each item in the region of Lombardy

The teachers interviewed reflected a high interventionist attitude which might directly impact their classroom practice.

There was no *Low Interventionist approach* in 3 Items: *Teaching techniques*, *Staff cooperative planning,* and *Staff transferring information*. This means that teachers adapt their instructions to allow students to participate and work collaboratively with their colleagues. In contrast, the

item with the highest percentage (9,5%) of *Low Interventionist approach* is *Teachers contact parents.*

This data is coherent with the results of *High Interventionist approach.* The item with the lowest percentage (54,0%) is *Teachers contact parents.* It means that in the task of contact parents teachers face some difficulties. In the Item *Staff transferring information* teachers reached the highest percentage (90,5%) of interventionist attitude

The 11 items were grouped in five topics: *Assessment, Programming, Review, Communication with staff,* and *Communication with parents.* Table 18 shows the results. To determine the subscale scores, the researcher calculated the composite score of the items that load on each topic, according to the original scale form (Jordan et al, 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998).

Total teachers Lombardy region= 63	**Interventionist teaching approach**					
Topics	**Low**		**Middle**		**High**	
	1	**%**	**2**	**%**	**3**	**%**
Assessment	*9*	*7,1*	*37*	*29,4*	*80*	*63,5*
Programming	*10*	*4,0*	*69*	*27,4*	*173*	*68,6*
Reviewing	*2*	*3,2*	*16*	*25,4*	*45*	*71,4*
Communication with staff	*0*	*0*	*22*	*17,5*	*104*	*82,5*
Communication with parents	*8*	*6,3*	*30*	*23,8*	*88*	*69,9*

Table 18: Frequency and the distribution of the interview scores in each subgroup in the region of Lombardy

The Assessment subscale is comprised of 2 Items (Assessment, view of the problem, Relies on information). The Programming subscale is comprised of 4 Items (Goals and objectives monitoring, Setting individual objectives, Class accommodation, Teaching techniques). The Reviewing scale is comprised of 1 Item (Child monitoring). The Communication with staff subscale is comprised of 2 Items (Staff cooperative planning, Staff transferring information).

Finally, the Communication with parents subscale is comprised of 2 Items (Teachers contact parents, Teacher report to parents).

In the topic *Communication with staff*, no teacher falls into a *Low Interventionist approach*. It means that teachers work cooperatively with their colleagues. The subscale *Assessment* instead had the highest percentage (7,1%) of *Low Interventionist* approach among the 5 subgroups. These teachers might consider the difficulties of the identified child as something beyond their expertise and therefore beyond their intervention.

The distribution and frequency of *High Interventionist approach* is coherent with the data presented above. *Communication with staff* reported the highest percentage (82,5%), while *Assessment* presented the lowest percentage (63,5%).

Teaching approach was also calculated for the 3 different teacher subgroups involved in the study: support teachers, teachers of humanistic subjects, and teachers of scientific subjects. The maximum score a teacher subgroup can reach is N= 231. The frequencies of the answers distributed in the three type of teaching approach (ie *Low*, *Middle*, *High*) are presented in Figure 5.

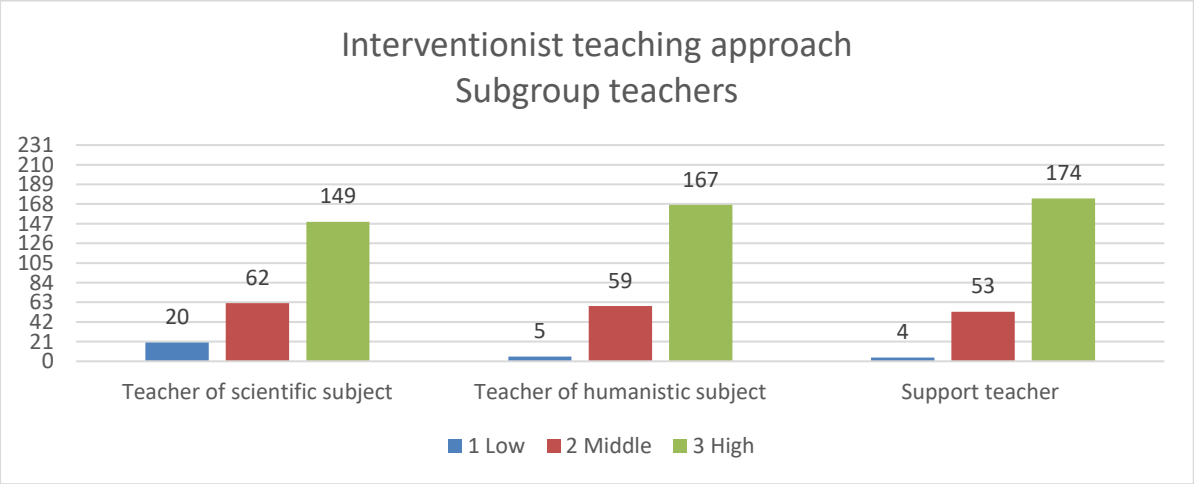

Figure 5: Frequency and distribution of the interview scores in each teacher subgroup in the region of Lombardy

Support teachers presented the highest interventionist approach: *N*= 174. At the opposite end of the scale, teachers of scientific subjects reflected a lower interventionist approach: *N*= 149. Teachers of scientific subjects presented the highest frequency of 1, *N*= 20, while support teachers presented the lowest frequency of 1, *N*= 4.

Among the teacher subgroups teachers of scientific subjects presented therefore the lowest interventionist approach.

The percentage of frequency and distribution of the interview scores of teaching approach was also calculated for another subgroup: years of experience (Figure 6). Teachers with 1-5 years of experience presented the highest interventionist teaching approach with a percentage of 90,9%. Teachers with more than 30 years of experience presented the lowest percentage in *High Interventionist approach* (56,6%). Teachers with 21-25 years of experience presented the highest percentage in *Low interventionist teaching approach* (*15,7%)* while less experienced teachers (1-5 years) presented the lowest percentage (1,0%). Less experienced teachers seem to have an interventionist attitude with their students.

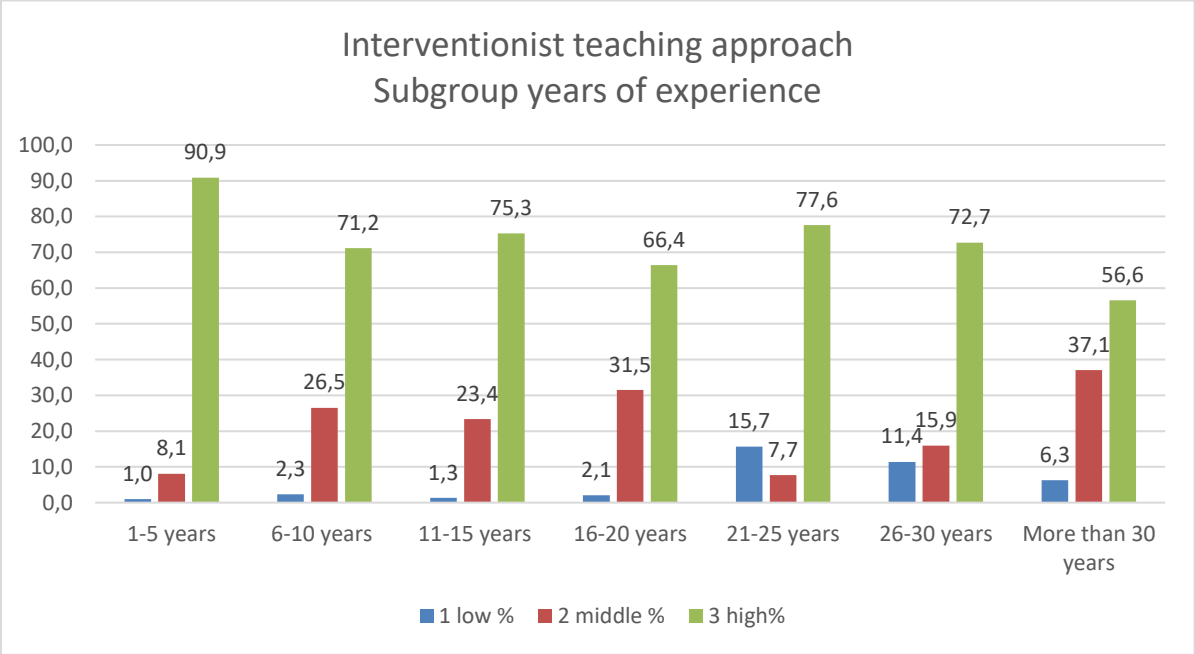

Figure 6: Frequency and distribution of the interview scores in the subgroup "years of experience" in the region of Lombardy

Sense of self-efficacy

The sense of self-efficacy has been studied using the Teacher Efficacy Scale (Tschannen-Moran & Woolfolk Hoy, 2001, 2007), which is a self-report questionnaire. Teachers were asked to assess their capability in three different areas. The measures consist of 24 items, assessed along a 9-point continuum: 1- nothing, 9-a great deal.

To determine the *Efficacy in Student Engagement*, *Efficacy in Instructional Practices*, and *Efficacy in Classroom Management* subscale scores, the researcher calculated means of the items that load on each factor, following the official direction for scoring the Teacher Efficacy Scale (TES, table 19).

Subscale	*Mean*
Efficacy in Student Engagement	*6,5*
Efficacy in Instructional Strategies	*6,5*
Efficacy in Classroom Management	*6,4*
Total	***6,5***

Table 19: Questionnaire, means of the 3 subscales in the region of Lombardy

The mean of the 63 Italian teachers in the three subscale is 6,5. The high sense of self-efficacy seems to be apparently coherent with the high interventionist teaching approach drawn by the interview.

Overall*, Efficacy in Classroom Management* presented the lowest score, with a mean of 6,4. *Efficacy in Student Engagement* and *Efficacy in Instructional Strategies* present the highest value with a mean of 6,5. Therefore, Italian teachers feel more capable of engaging students.

Similarly to the interview, a mean score of the three subscales was also calculated for the 3 different teacher subgroups: support teachers, teachers of humanistic subjects, and teachers of scientific subjects. Figure 7 shows the results.

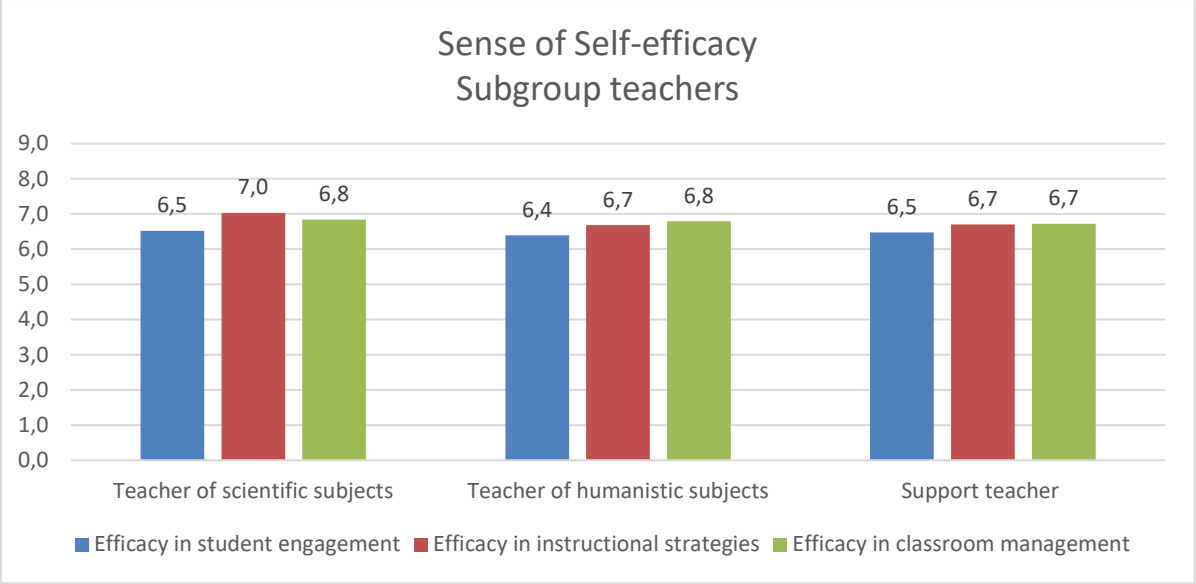

Figure 7: Mean of the 3 subscales questionnaire for teacher subgroups in the region of Lombardy

Overall, the scores are similar among the different teacher subgroups. The highest score is M= 7,0, and it belongs to Teachers of scientific subject *in instructional strategies.* Teachers of scientific subject apparently feel more capable than their colleagues in providing instructional strategies.

Similarly to the interview, a mean score for the subgroup years of experience (Figure 8) was also calculated among the three subscales.

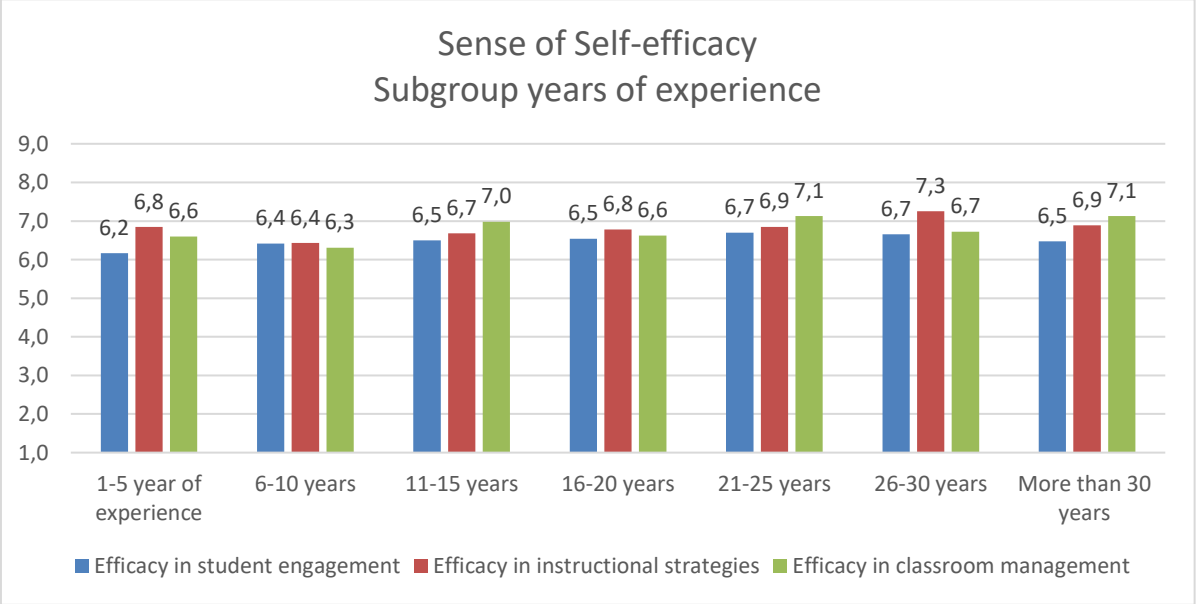

Figure 8: Mean of the 3 subscales questionnaire for years of experience subgroups in the region of Lombardy

Teachers with 26-30 years of experience presented the highest sense of self efficacy (*M*= 7,3), in the subscale *Efficacy in instructional strategies*. The lowest score (*M*= 6,2) belongs to less experienced teachers (1-5 year of experience) in the subscale *Efficacy in student engagement.*

The researcher further investigated the correlation among the 3 teachers with the lowest (↓) and highest (↑) cumulative score in the interview and in the questionnaire, and the specific diagnosis of the child (Table 20). The highest cumulative score a teacher can reach is *N= 249.* Two teachers with the highest score belonged to the same team, respectively a teacher of scientific subject and a support teacher. The child identified presented a mixed disorder of scholastic skills.

The teacher with the lowest score is a teacher of scientific subject, associated to a child with pervasive developmental disorders.

Teachers	Composite score interview and questionnaire	Diagnosis
1 ⇧	*N= 234*	Mixed disorder of scholastic skills.
2 ⇧	*N= 234*	Mixed disorder of scholastic skills
3 ⇧	*N= 234*	Dystonic cerebral palsy with language delay
4 ⇧	*N=233*	Psychosis
5 ⇧	*N= 230*	Specific expressive language impairment
1 ⇩	*N= 160*	Moderate intellectual disability and language delay
2 ⇩	*N= 158*	Moderate intellectual disability and language delay
3 ⇩	*N= 157*	Autoimmune disease
4 ⇩	*N= 154*	Pervasive developmental disorder and mixed specific developmental disorders
5 ⇩	*N= 140*	Pervasive developmental disorders

Table 20: Teachers highest and lowest score and child diagnosis

To investigate whether there is a correlation between the sense of self-efficacy of the teachers and their attitude about their roles and responsibilities in working with students with disability, Spearman's correlation was carried out for the interview cumulative scores and the cumulative score of the mean in the TSE questionnaire of the 63 teachers. The relationships between the two global variables were examined using a Spearman test with significance set at the .01 level (2-. tailed). The significant Spearman correlation coefficient value of 0,440 confirms the results previously described in the presentation of the findings from each tool independently. There appears to be a significant positive correlation between the two variables: sense of self-efficacy of the teachers and their attitude about their roles and responsibilities in working with students with disability.

4.4 ANALYSIS OF RESEARCH QUESTION ONE: CANTON OF TICINO

The first research question was the following:

"Is there a relationship between the sense of self-efficacy of the teachers and their attitude about their roles and responsibilities in working with students with disability?

- How do teachers consider their attitudes to roles and responsibilities with their students with disability?
- How do teachers perceive their sense of self-efficacy?"

Attitude about the roles and responsibilities of teachers in working with students with disability: the teaching approach

Research question 1 was addressed through the Pathognomonic-Interventionist interview (Jordan, Schwartz, & McGhie-Richmond, 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998), composed of 15 items and the Teacher Efficacy Scale (TES) (Tschannen-Moran & Woolfolk Hoy, 2001, 2007) questionnaire, composed of 24 items. The total items were 39.

The interview was used to investigate the attitudes of teachers toward roles and responsibilities in working with students with disability. It draws the grade of teaching approach of teachers on each of the 11 items. The number of teachers interviewed was 56. For each of the 11 items

of the interview, a rating of "high interventionist teaching approach" was scored as 3, a rating of “middle” was scored as 2, and a rating of “low” was scored as 1.

Table 21 shows the frequency and the distribution of the scores for each item.

The percentage of *Low* rating is 3,4%, the percentage of *Middle* rating is 18,1%, while the percentage of *High* rating is 78,5%. Overall teachers reflected a high interventionist approach. Of the 11 items, 4 of them, respectively *Assessment view of the problem*, *Teaching techniques, Staff transferring information* and *Teacher report to parents* had *N*=0 *Low interventionist teaching approach*. It means that those teachers view the problem of the student as a result of the interaction of the student with their environment, they adapt their teaching technique, and they share information with teaching staff and parents. The item with the highest *Low Interventionist approach* percentage (10,7%) is *Relies on information.* Those teachers do not access a variety of sources in order to meet the specific needs of the child.

Regarding *High interventionist approach*, the item with the highest percentage is *Staff transferring information (*96,4%*)*, while the items with lowest percentages are *Relies on information* (67,9%) and *Setting individual objectives (67,8%).*

Total teachers canton of Ticino= 56		**Interventionist teaching approach**					
	Item description	**Low**		**Middle**		**High**	
		1	**%**	**2**	**%**	**3**	**%**
Assessment	*Assessment, view of the problem*	*0*	*0*	*12*	*21,4*	*44*	*78,6*
	Relies on information	*6*	*10,7*	*12*	*21,4*	*38*	*67,9*
Programming	*Goals and objectives monitoring*	*2*	*3,6*	*12*	*21,4*	*42*	*75,0*
	Setting individual objectives	*2*	*3,6*	*16*	*28,6*	*38*	*67,8*
	Class accommodation	*4*	*7,1*	*11*	*19,7*	*41*	*73,2*
	Teaching techniques	*0*	*0*	*8*	*14,3*	*48*	*85,7*
Reviewing	*Child monitoring*	*2*	*3,6*	*6*	*10,7*	*48*	*85,7*
Communication with staff	*Staff cooperative planning*	*2*	*3,6*	*13*	*23,2*	*41*	*73,2*
	Staff transferring information	*0*	*0*	*2*	*3,6*	*54*	*96,4*
Communication with parents	*Teachers contact parents*	*2*	*4,6*	*10*	*22,7*	*32*	*72,7*
	Teacher report to parents	*0*	*0*	*5*	*11,4*	*39*	*88,6*
	Total	*20*	*3,4*	*107*	*18,1*	*465*	*78,5*

Table 21: Frequency and distribution of the interview scores in each item in the canton of Ticino

The 11 items were grouped into five topics, according to the original scale: *Assessment, Programming, Review, Communication with staff,* and *Communication with parents.* To determine the subscale scores, the researcher calculated the composite score of the items that load on each factor, according to the original scale form (Jordan et al., 1997; Jordan & Stanovich, 2001). Table 22 shows the results

Total teachers canton of Ticino= 56	**Interventionist teaching approach**					
Topics	**Low**		**Middle**		**High**	
	1	**%**	**2**	**%**	**3**	**%**
Assessment	*6*	*5,4*	*24*	*21,4*	*82*	*73,2*
Programming	*8*	*3,6*	*47*	*21*	*169*	*75,4*
Reviewing	*2*	*3,6*	*6*	*10,7*	*48*	*85,7*
Communication with staff	*2*	*1,8*	*15*	*13,4*	*95*	*84,8*
Communication with parents	*2*	*2,3*	*15*	*17*	*71*	*80,7*

Table 22: Frequency and distribution of the interview scores in each subgroup in the canton of Ticino

Regarding the distribution and frequency of *Low Interventionist approach* among the 5 subscales*, Communication with staff* presented the lowest percentage (1,8%): this means that the percentage of teachers who do not work cooperatively is very low. The subscale *Assessment* presented the highest score (5,4%).

In regard to the distribution and frequency of *High Interventionist approach*, *Assessment* presented the lowest score (73,2%), and *Reviewing* (85,7%) the highest. The finding confirms that teachers work cooperatively.

A percentage of interventionist teaching approach (Figure 9) was also calculated for the 4 different teacher subgroups involved in the study: mainstreaming teacher, pedagogical support teacher, individualised pedagogical support teacher, and teacher of special class.

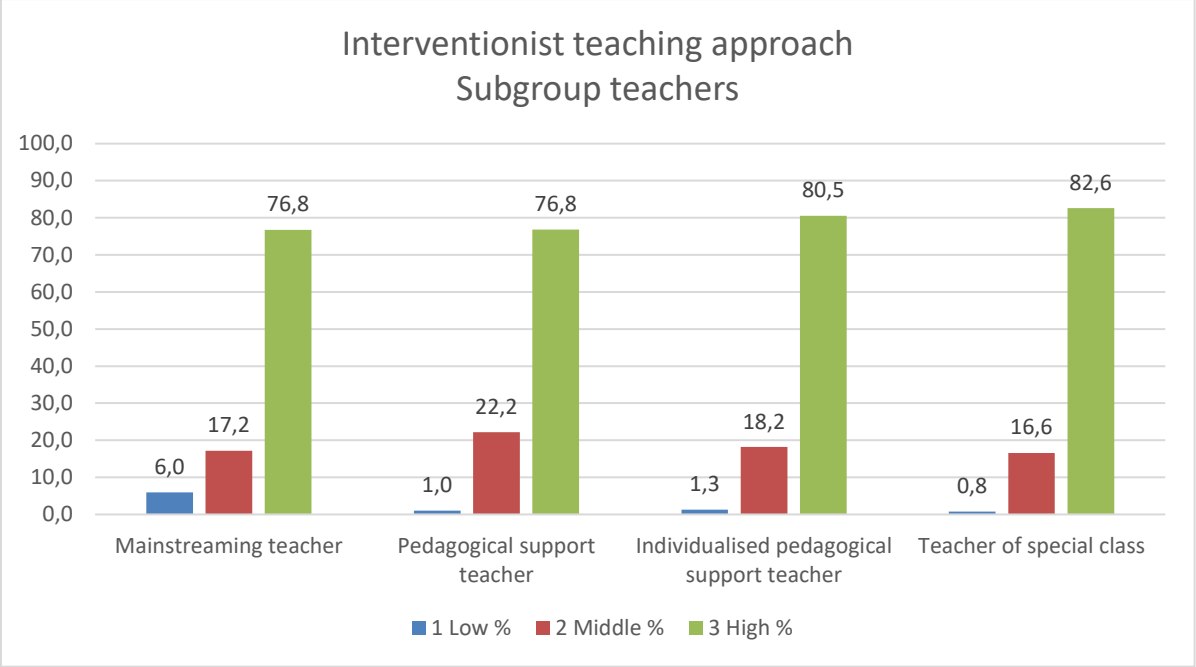

Figure 9: Frequency and distribution of the interview scores in each teacher subgroup in the canton of Ticino

Mainstreaming teachers presented the highest percentage (6,0%) with *Low interventionist approach* among the subgroup. Teachers of special class presented the highest *High interventionist approach* percentage (82,6%). The highest percentage of *Middle interventionist approach* (22,2%) is represented by pedagogical support teachers.

A percentage of *Interventionist teaching approach* was also calculated for the subgroup "years of experience". Figure 10 shows the results.

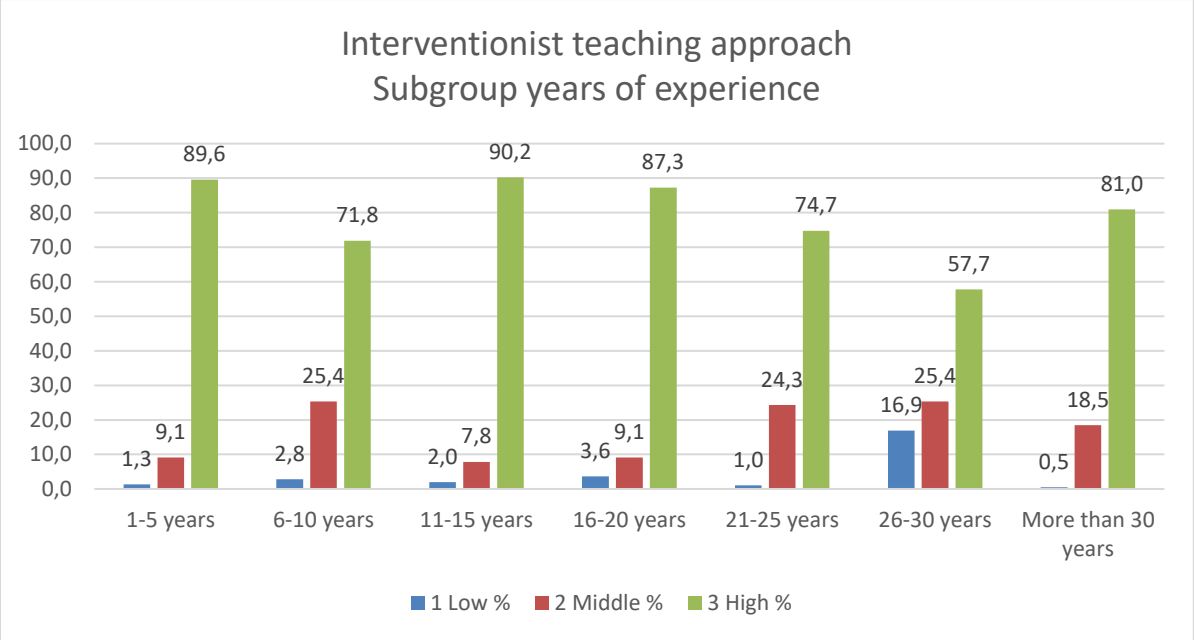

Figure 10: Frequency and distribution of the interview scores in the subgroup "years of experience" in the canton of Ticino

The lowest percentage of *Low interventionist teaching* approach (0,5%) belonged to teachers having more than 30 years of teaching. The highest percentage (16,9%) of *Low interventionist teaching approach* is represented by teachers with 26-30 years of experience. Teachers with 11-15 years of experience presented the highest percentage of *High interventionist approach* (90,2 %). The lowest percentage of *High Interventionist approach* (57,7%) is represented by teachers with 26-30 years of experience. Both less experienced teachers, 1-5 years, and most experienced teachers (more than 30 years) presented a high interventionist approach.

Sense of self-efficacy

The information related to sense of self-efficacy was measured using the Teacher Efficacy Scale (TES) (Tschannen-Moran & Woolfolk Hoy, 2001, 2007) questionnaire, which consisted of 24 items divided in 3 subscales: *Efficacy in Student Engagement*, *Efficacy in Instructional Practices*, and *Efficacy in Classroom Management*. The measures consist of 24 items, assessed along a 9-point continuum, (1-Nothing, 9-A Great Deal), with five anchors. Table 23 presents the results.

Subscale	*Mean*
Efficacy in Student Engagement	*5,9*
Efficacy in Instructional Strategies	*6,5*
Efficacy in Classroom Management	*6,5*
Total	***6,3***

Table 23: Questionnaire, means of the 3 subscales in the canton of Ticino

The mean of the 56 teachers in the 3 subscale is 6,3. The high sense of self-efficacy is coherent with the high interventionist teaching approach drawn by the interview.

Overall, *Efficacy in Student Engagement* presented the lowest score, with a mean of 5,9. *Efficacy in Instructional Strategies and Efficacy in Classroom Management* had the same mean, 6,5. Teachers in the canton of Ticino feel reasonably capable in providing instructional strategies and in classroom management, while they have some challenges in student engagement.

A mean score of the 3 subscales was also calculated for the different teacher subgroups: mainstreaming teacher, pedagogical support teacher, individualised pedagogical support teacher, and teacher of special class. Figure 11 shows the results.

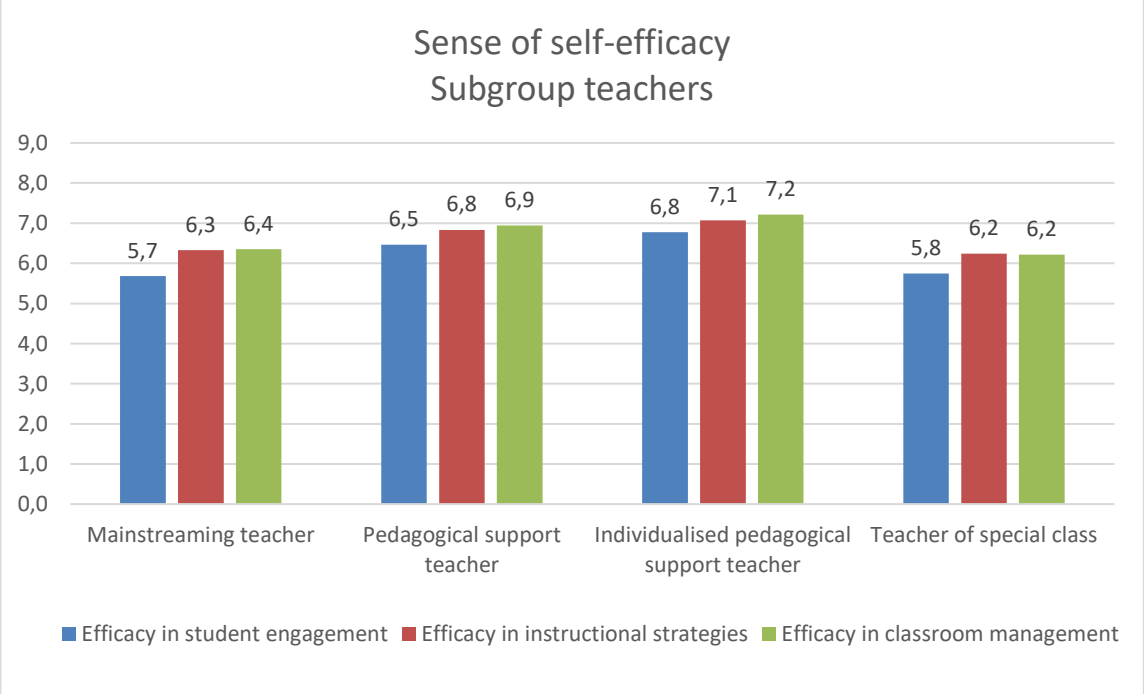

Figure 11: Mean of the 3 subscales questionnaire for teacher subgroups in canton of Ticino

Mainstreaming teachers presented the lowest score (*M*= 5,7) in the subscale *Efficacy in student engagement*, while individualised pedagogical support teachers presented the highest *(M*=6,8). Individualised pedagogical support teachers presented the highest score *(M*= 7,1) in the subscales *Efficacy in instructional strategies* and *Efficacy in Classroom management.*

Overall the sense of self-efficacy of individualised pedagogical support teacher is higher than the rest of the subgroups.

The differences in the Sense of Self-efficacy was also calculated for the subgroup "year of experience" (Figure 12).

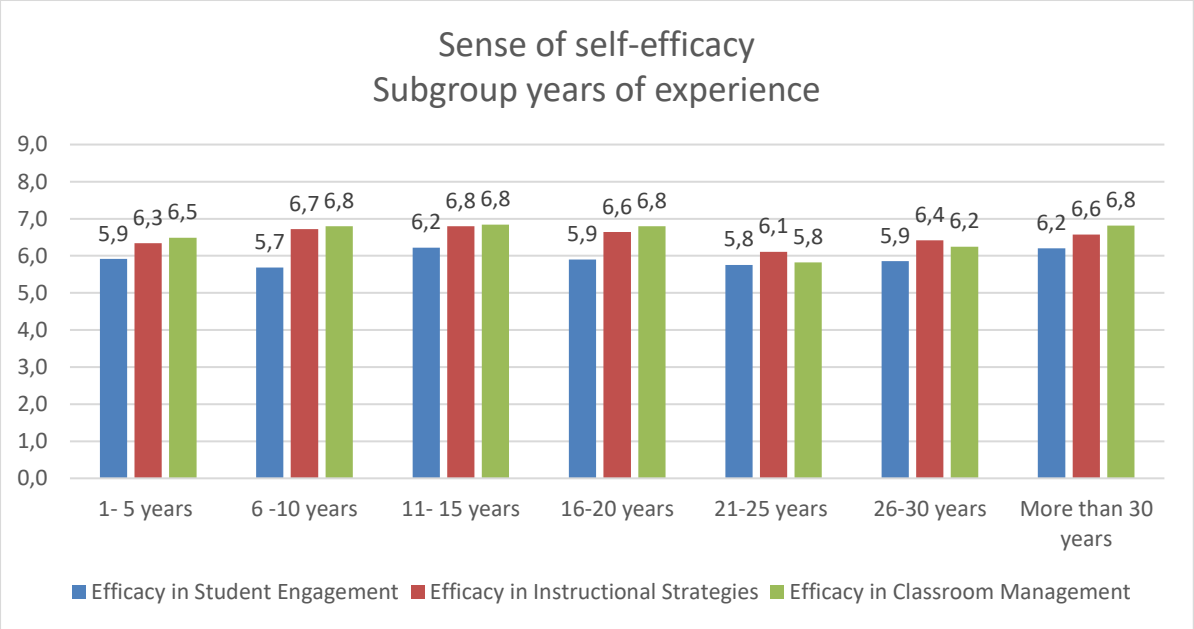

Figure 12: Mean of the 3 subscales questionnaire in the subgroup "years of experience" in the canton of Ticino

The results are quite homogeneous among the different groups. Teachers with 21-25 years of experience have the lowest score in *Efficacy in classroom management* (M=5,8) and in *Efficacy in Instructional strategies* (M=6,1).

Efficacy in classroom management presents a high score between 6,5 and 6,8 in almost all the subgroups. *Efficacy in student engagement* has a lower score, between 5,7 and 6,2.

Efficacy in instructional strategies is also high and ranges from 6,1 to 6,8.

The researcher further investigated the correlation among the 5 teachers with the lowest (↓) and highest (↑) composite scores of the interview and the questionnaire, and the specific diagnosis of the child (Table 24). The highest cumulative score a teacher can reach is N= 249.

Teachers	Composite score Interview e questionnaire	Diagnosis
1 ⇧	N= 224	Developmental coordination disorder (DCD) and borderline IQ
2 ⇧	N= 224	Intellectual disability and writing disorders
3 ⇧	N= 224	Visual impairment, blind
4 ⇧	N= 223	Visual impairment, blind
5 ⇧	N= 216	Hearing impairment
1 ⇩	N= 145	Specific language impairment
2 ⇩	N= 145	Learning disability
3 ⇩	N= 132	Autism spectrum disorder (ASD)
4 ⇩	N= 123	Intellectual disability
5 ⇩	N= 120	Mobility impairment due to lack of oxygen at birth

Table 24: Teachers highest and lowest score and child diagnosis

Among the group with the highest score, 3 of the 5 teachers worked with children with sensory disabilities. The canton of Ticino has good practices in meeting the educational needs of children with visual and hearing impairment. The remaining 2 teachers have to meet the educational needs of children with intellectual disability. Teachers with lower scores work with children with very different disabilities. Among them, the teacher with the lowest score (N=120) has to respond to the special needs of a child with mobility impairment, probably having a very low functioning profile.

To investigate whether there is a correlation between the sense of self-efficacy of teachers and their attitude about their roles and responsibilities in working with students with disability,

Spearman's correlation was carried out for the cumulative scores of the interview and of the mean in the TSE questionnaire of the 56 teachers. The relationships between the two global variables were examined using a Spearman test, with significance set at the .01 level (2-. tailed). The significant Spearman correlation coefficient value was 0,521. The correlation in the canton of Ticino is higher that the results of the Spearman correlation score in the Lombardy region, which is 0,440. The significant positive correlation between the two variables, namely the sense of self-efficacy of teachers and their attitude about their roles and responsibilities in working with a student with disability, has been therefore confirmed.

4.5 ANALYSIS OF RESEARCH QUESTION TWO: LOMBARDY REGION

The second research question was the following:
"Is there a relationship between the conceptualisation of disability and programming of the teachers?

- How do teachers conceptualise the disability of the identified child?
- What teachers do in order to adapt the context to the needs of the students? Eg how do the teachers adapt goal setting, class accommodation, differentiated instructions?"

Research question 2 was addressed through the Pathognomonic-Interventionist interview (Jordan, Schwartz, & McGhie-Richmond, 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998) and the Activity Theory framework (Engeström, 2001, 2008). The researcher calculated the cumulative scores of teachers on the *Assessment* subscale and correlated this score with the cumulative scores of teachers on the *Programming* subscale. The *Assessment* subscale is comprised of 2 items (*Assessment view of the problem, Relies on information*). The *Programming* subscale is comprised of 4 Items (*Goals and objectives monitoring, Setting individual objectives, Class accommodation, Teaching techniques).*
Assessment subscale investigated the variable labelled as conceptualisation of disability and aimed to clarify the learning characteristics of the students, according to the perspective of the teacher. Teachers may believe that learning problems exist within the child, and therefore adopt an inactive behaviour (score 1 – *Low interventionist approach*). At the other end of the continuum, teachers may consider themselves responsible for the learning process of the student (score 3 – *High interventionist approach*).

Programming identifies goals and additional instructional strategies or resources that teachers may adopt in order to support a child with disability. The programming subscale investigated the variable labelled as programming, which includes: goal setting and monitoring, means of organisation and teaching techniques. Whether a teacher monitors the progress of their student, sets individual goals, accommodates the classroom, adapts teaching technique, were rated with a 3 score, ie *High interventionist approach.* At the other end of the continuum, whether teacher did not monitor the progress of their student, neither set individual goals or accommodated the classroom, and did not adapt their teaching technique, were rated with a 1 score, ie *Low interventionist approach.*

Table 25 shows the frequency and the distribution of the scores in each variable.

63,5% of teachers were rated as having an *High interventionist approach* in the subscale *Assessment*. The percentage of the rating for teachers with *High interventionist approach* were slightly higher in the *Programming* subscale (68,6%). The percentage of *Low interventionist approach* is 7,1% in the variable *Assessment,* and 4,0% in the variable *Programming*. The rating of the 2 variables is coherent with a *High interventionist teaching approach.* Teachers in the Lombardy region generally seem to have a biopsychosocial understanding of disability and adapt goals, means and instructions in order to meet the need of a child.

Total teachers Lombardy region= 63	**Interventionist teaching approach**					
Topics	**Low**		**Middle**		**High**	
	1	**%**	**2**	**%**	**3**	**%**
Assessment	*9*	*7,1*	*37*	*29,4*	*80*	*63,5*
Programming	*10*	*4,0*	*69*	*27,4*	*173*	*68,6*

Table 25: Frequency and distribution of interview scores in the 2 variables in the region of Lombardy

The conceptualisation of disability was also calculated for the 3 different teacher subgroups involved in the study: support teachers, teachers of humanistic subjects, and teachers of scientific subjects. For the *Assessment* subscale the highest possible score was *N*=126. The cumulative score of the answers (1, 2, 3) of each teacher subgroup are presented in Figure 13.

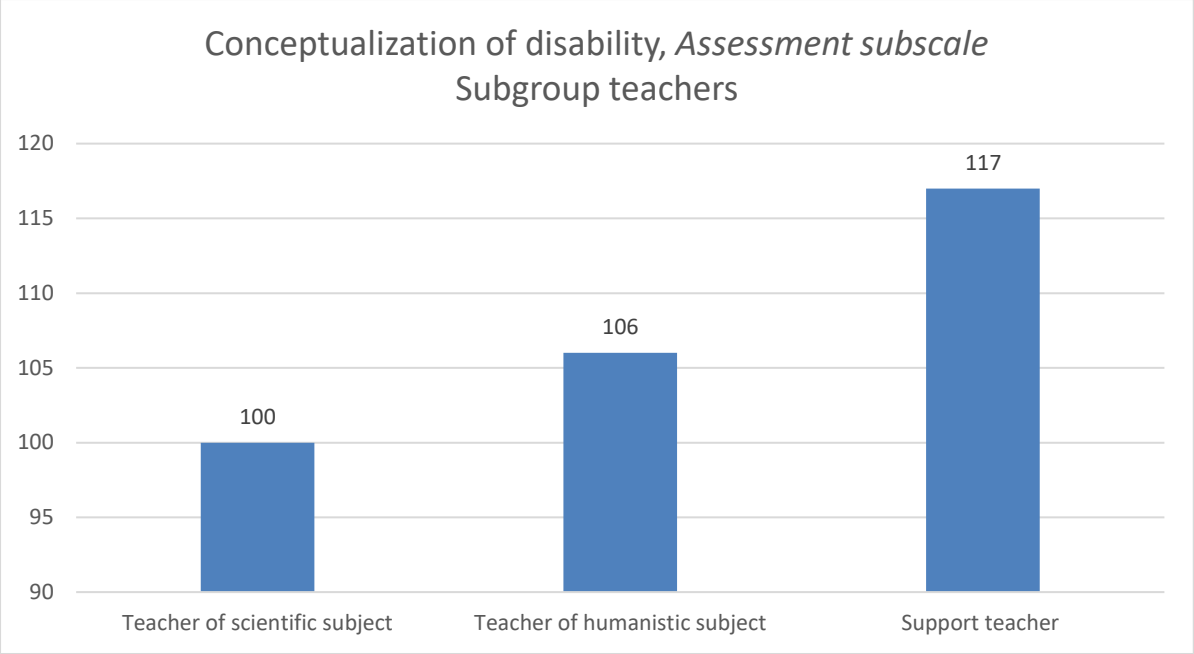

Figure 13: Cumulative score of Assessment for teacher subgroups in the region of Lombardy

Support teachers have a more biopsychosocial approach among the different subgroups. In the *Assessment* subscale support teachers had the highest score (*N*=117) whereas teachers of scientific subjects had the lowest (*N*= 100). Overall, teachers of scientific subjects, teachers of humanistic subject, and support teachers presented a *High Interventionist approach* and therefore a biopsychosocial approach with the child on which the interview was focused.

For the *Programming* subscale the highest possible score was *N*= 252 (Figure 14). Teachers of humanistic subjects are the ones with a more individualised approach (*N*= 230) in terms of programming, while teachers of scientific subjects face some challenges (*N*= 212). Overall teachers of scientific subjects, teachers of humanistic subjects, and support teachers presented a *High Interventionist approach.*

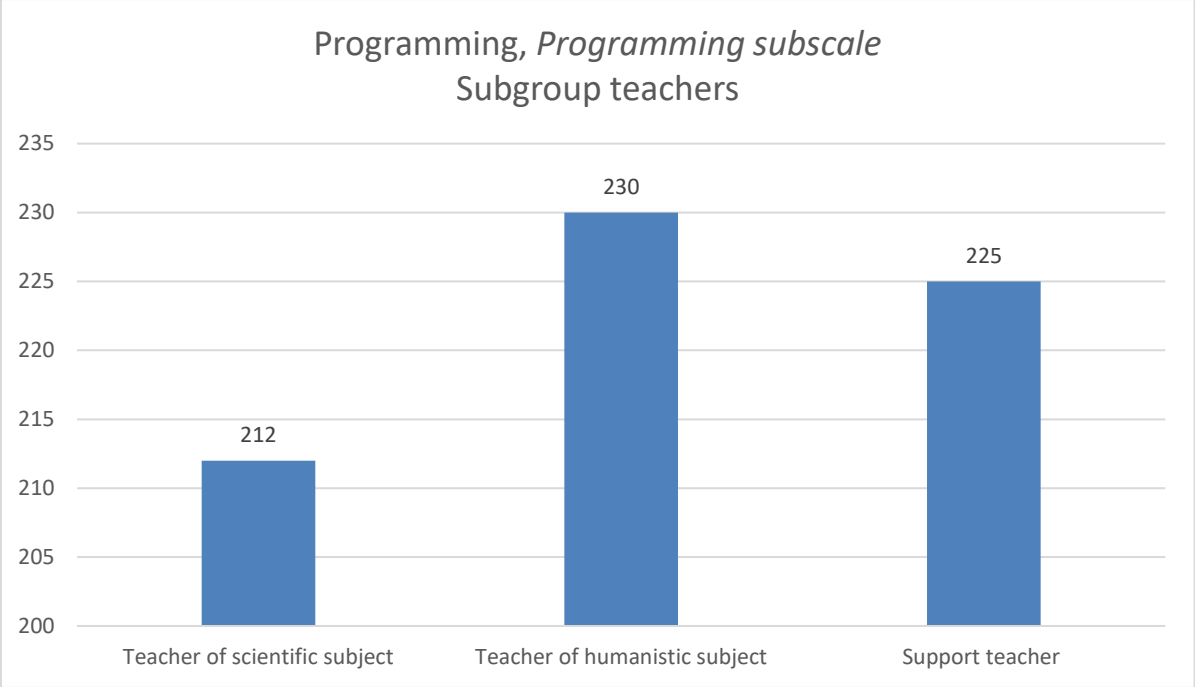

Figure 14: Composite score of Programming for teacher subgroups in the region of Lombardy

The Activity Theory framework (Engeström, 2001, 2008) has been used to disaggregate different mediating factors that influence one of the objects of the area of Programming: goal setting (including tools, rules, community, and division of labour). In the interviews, teachers were asked additional question on *Programming* regarding goal setting: tools, team, division of labour and legislation. The legislative top-down approach is reflected in the data results. As required by the Legislation, Law n. 104/1992, the majority of the sampling population (*N*= 62, 98,4%) uses a formal and established tool for setting goals, namely "Individual Educative Plan (IEP)". The team who formally sets the IEP and the goals included only members of the class team, ie regular teachers and support teachers. Every teacher is responsible for their subject, but support teachers assume a "case manager" role. Since the Legislation required an IEP, this may be a factor having an impact on the *High interventionist approach* in *Programming*.

To investigate whether there is a relationship between the conceptualisation of disability and programming, the researcher used Spearman test with significance set at the .01 level (2-. tailed). Spearman's correlation was carried out for the cumulative scores of the 63 teachers for the *Assessment* subscale and the cumulative scores of the 63 teachers for the *Programming*

subscale. The significant Spearman correlation coefficient value of 0,608 confirms the significant positive correlation between the two variables.

4.6 ANALYSIS OF RESEARCH QUESTION TWO: CANTON OF TICINO

The second research question was the following:
"Is there a relationship between the conceptualisation of disability and programming of the teachers?

- How do teachers conceptualise the disability of the identified child?
- What do teachers do in order to adapt the context to the needs of the students? Eg how do the teachers adapt goal setting, class accommodation, differentiated instructions?"

Research question 2 was addressed through the Pathognomonic-Interventionist interview (Jordan, Schwartz, & McGhie-Richmond, 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998) and the Activity Theory framework (Engeström, 2001, 2008). The researcher calculated the cumulative score of the teachers on 2 subscales: *Assessment* and *Programming*. Spearman correlation was used to describe the relationship between the two variables.
The Assessment subscale investigated the variable *Conceptualisation of disability,* and aims to clarify the learning characteristics of the students according to the teacher. Teachers may believe that the learning problems exist within the child, and therefore display an inactive behaviour (score 1 – low interventionist teaching approach). At the other end of the continuum teachers may consider themselves an important factor for the learning process of the student (score 3 – high interventionist teaching approach).
Programming includes different teacher tasks: goal setting and monitoring, class adaptation and teaching techniques.
73,2% of the teachers were rated as having a *High interventionist approach* in the subscale *Assessment* (Table 26). The percentage of teachers with ratings of *High interventionist approach* was slightly higher in the *Programming* subscale (75,4%). The percentage of *Low interventionist approach* is 5,4% in the variable *Assessment* and 3,6% in the variable *Programming*. The rating of the 2 variables is coherent with a *High interventionist teaching approach.*

Total teachers canton of Ticino= 56	**Interventionist teaching approach**					
Topics	**Low**		**Middle**		**High**	
	1	**%**	**2**	**%**		**3 %**
Assessment	*6*	*5,4*	*24*	*21,4*	*82*	*73,2*
Programming	*8*	*3,6*	*47*	*21*	*169*	*75,4*

Table 26: Frequency and distribution of interview scores in the 2 variables in the canton of Ticino

A percentage cumulative score of the 2 subscales was also calculated for the 4 different teacher subgroups: mainstreaming teacher, pedagogical support teacher, individualised pedagogical support teacher, teacher of special class.

In the variable *Assessment*, the percentage of the 4 different groups of teachers is high (Figure 15). Surprisingly, the lowest percentage (87,50%) among the 4 different teachers groups belongs to teachers of special class. The higher score (95,20%) belongs to individualised pedagogical support teacher.

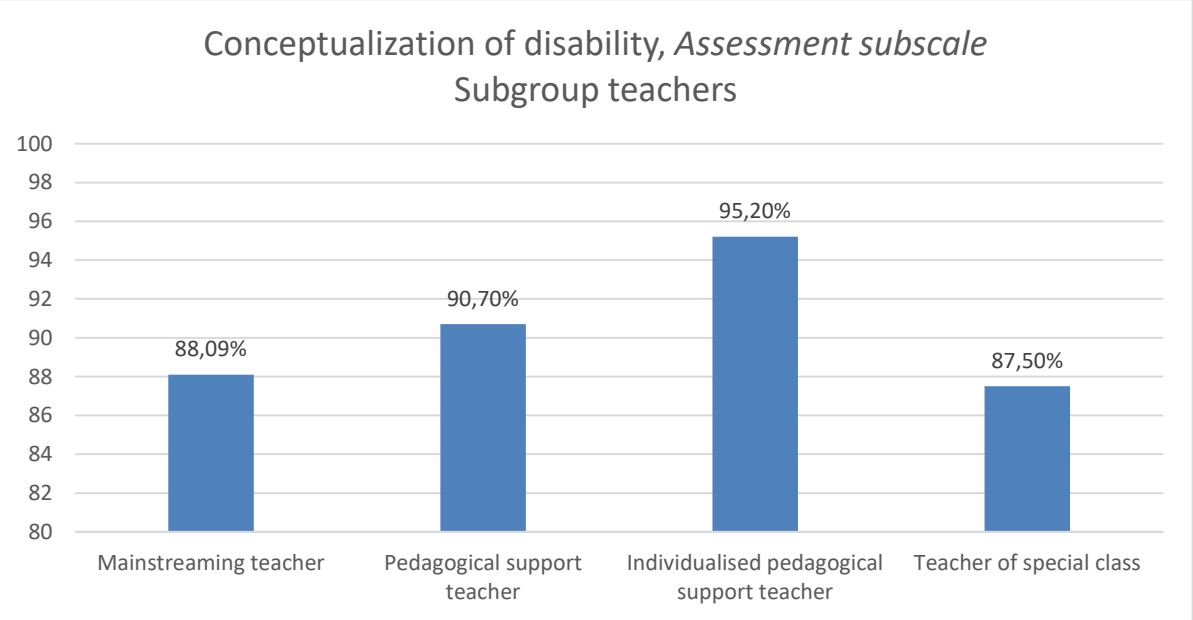

Figure 15: Total percentage of Assessment for teacher subgroups in the canton of Ticino

The same analysis has been done for the subscale *Programming*. Teachers of special class present the highest percentage (96,52%), while pedagogical support teachers have the lowest (88,09%). Overall the percentage of *Programming* is high (Figure 16).

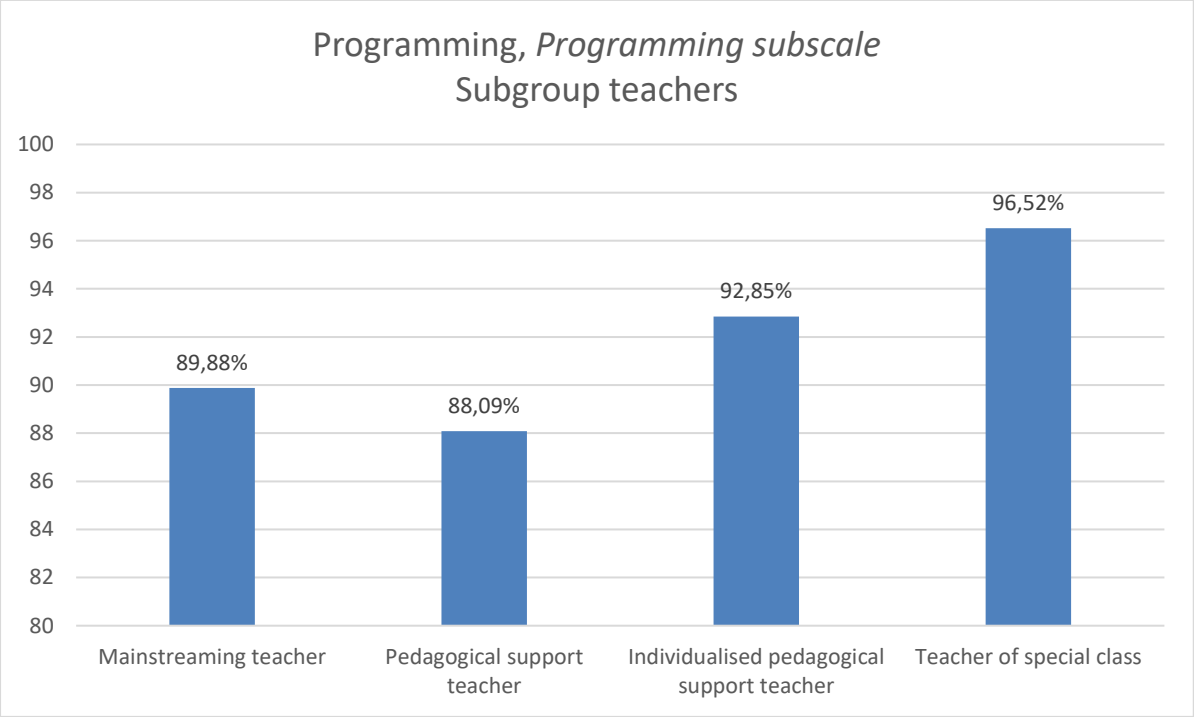

Figure 16: Total percentage of Programming for teacher subgroups in the canton of Ticino

The Activity Theory framework (Engeström, 2001, 2008) has been used to disaggregate different mediating factors that influence one of the objects of the area of Programming: goal setting. The researcher further investigated the process of goal setting: tools, rules, community and division of labour and legislation. The majority of the sampling population (*N*= 64%) used a mix of informally and formally established tools for setting goals. Of the remaining sample, 20% of teachers used only formal tools, and a minority (16%) used only informal tools. The team which sets the goals included mainstreaming teachers, pedagogical support teachers and individualised pedagogical support teachers. Pedagogical support teachers and individualised pedagogical support teachers have a major role in the process of setting goals. This finding may be a factor having an impact on *High interventionist approach* in *Programming*.

The relationships between the subscale was examined using a Spearman test with significance set at the .01 level. Spearman's correlation was carried out for the cumulative scores of the 56 teachers for the *Assessment* subscale and the cumulative scores of the 56 teachers for the

Programming subscale. The significant Spearman correlation coefficient value of 0,495 confirmed the significant positive correlation between the 2 variables.

4.7 LOOKING ACROSS THE LOMBARDY REGION AND THE CANTON OF TICINO

Following the presentation of the finding of the Lombardy region and the canton of Ticino, this paragraph presents a cross national analysis of similarities and differences between the two sample areas. The chapter present the data of the third research question:

"What are the similarities and differences between the Lombardy region and the canton of Ticino?"

RQ1

Table 27 shows the percentage of the scores in the Lombardy region and in the canton of Ticino. The teachers interviewed were in total *N*=119. The percentage of *Low Interventionist approach* percentage is similar among the 2 areas of the study: respectively 4,2% and 3,4%. The percentage of high interventionist approach is slightly higher in the canton of Ticino (78,5%). Overall teachers in the 2 areas of the study presented a high interventionist approach.

Total teachers Lombardy region= 63 *Total teachers canton of Ticino= 56*	**Interventionist teaching approach**		
	Low %	***Middle %***	***High%***
Region Lombardy teachers	*4,2*	*25,1*	*70,7*
Canton of Ticino's teachers	*3,4*	*18,1*	*78,5*

Table 27: Teaching approach percentage distribution in the 2 areas of the study

The items were grouped in five topics: *Assessment, Programming*, *Review*, *Communication with staff*, and *Communication with parents*. Table 28 shows the results.

Total teachers Lombardy region= 63 *Total teachers canton of Ticino= 56*	**Interventionist teaching approach**					
Topics	***Low % LO***	***Low % TI***	***Middle % LO***	***Middle % TI***	***High % LO***	***High % TI***
Assessment	*7,1*	*5,4*	*29,4*	*21,4*	*63,5*	*73,2*
Programming	*4,0*	*3,6*	*27,4*	*21*	*68,6*	*75,4*
Reviewing	*3,2*	*3,6*	*25,4*	*10,7*	*71,4*	*85,7*
Communication with staff	*0*	*1,8*	*17,5*	*13,4*	*82,5*	*84,8*
Communication with parents	*6,3*	*2,3*	*23,8*	*17*	*69,9*	*80,7*

Table 28: Frequency and distribution of the interview scores in each subgroup in the region of Lombardy (LO) and in the canton of Ticino (TI)

The highest percentages belong to teachers in the canton of Ticino: *Reviewing* (85,7%) and *Communication with staff* (84,8%). The data show that teachers in the canton of Ticino work slightly more cooperatively in terms of cooperative planning and sharing information comparing to teachers in the Lombardy region (82,5%).

In contact parents and report to parents (subscale *Communication with parents*) there is a significant difference among the 2 areas of the study. *High interventionist approach* in *Communication with staff* is on the contrary similar in the 2 areas of the study.

Assessment, which is represented by a medical or biopsychosocial conceptualisation of disability, presented a difference among the areas of the study: teachers in the canton of Ticino presents in fact a higher biopsychosocial conceptualisation of disability (73,2%) than the teachers in the Lombardy region (63,5%).

Middle interventionist approach is higher in the Lombardy region in all the 5 subscales.

Interventionist teaching approach (Figure 17) was also calculated for the different teacher subgroups involved in the study.

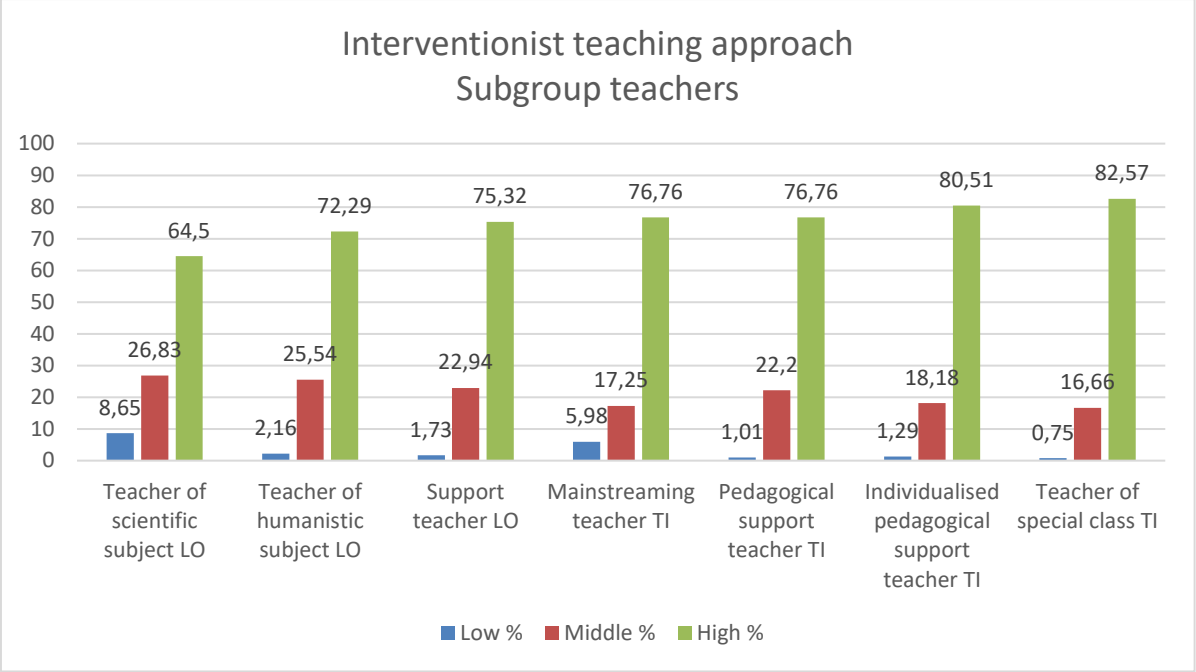

Figure 17: Percentage of the interview scores in the subgroups of teachers in the Lombardy region (LO) and the canton of Ticino (TI)

Teachers of special class presented the highest interventionist percentage (82,57%), teachers of scientific subjects the lowest (64,5%). Mainstreaming teachers in the canton of Ticino (76, 76%) presented a similar percentage to teachers of humanistic subjects in the Lombardy region (72,29%). Among the *Lower interventionist approach*, Italian teachers of scientific subjects presented the highest percentage (8,65%) and teachers of special class the lowest (0,75%). Among the support teacher subgroups, individualised pedagogical support teachers presented the highest percentage (80,51%), while pedagogical support teachers and support teachers presented a similar percentage, respectively 76,76% and 75,32%.

Interventionist teaching approach (Table 29) was also calculated for the subgroup "years of experience".

	Low %	Middle %	High%
1-5 years LO	*1,0*	*8,1*	*90,9*
1-5 years TI	*1,3*	*9,1*	*89,6*
6-10 years LO	*2,3*	*26,5*	*71,2*
6-10 years TI	*2,8*	*25,4*	*71,8*
11-15 years LO	*1,3*	*23,4*	*75,3*
11-15 years TI	*2,0*	*7,8*	*90,2*
16-20 years LO	*2,1*	*31,5*	*66,4*
16-20 years TI	*3,6*	*9,1*	*87,3*
21-25 years LO	*15,7*	*7,7*	*76,6*
21-25 years TI	*1,0*	*24,3*	*74,7*
26-30 years LO	*11,4*	*15,9*	*72,7*
26-30 years TI	*16,9*	*25,4*	*57,7*
More than 30 years LO	*6,3*	*37,1*	*56,6*
More than 30 years TI	*0,5*	*18,5*	*81,0*

Table 29: Percentage of the interview scores in "years of experience" subgroup in the Lombardy region (LO) and the canton of Ticino (TI)

The subgroups "1-5 years" and "6-10 years" present a similar trend.

The subgroups "11-15 years" and "16-20 years" present a similar trend in *Low interventionist approach*, but there is a discrepancy between *Middle* and *High*. The teachers of the canton of Ticino belonging to this age group are more interventionist.

In *Low interventionist approach*, the trend in Lombardy is lower than in the canton of Ticino. The trend changes for the subgroups "21-25 years of experience" and "more than 30 years of experience". For these 2 subgroups the percentage of *Low interventionist approach* in Lombardy region is significantly higher.

The mean for the sense of self-efficacy in the 2 countries is showed in Table 30.

The mean of the teachers in *Efficacy in student engagement* is higher in the Lombardy region. In the remaining subgroups the means are similar. The total score in the Lombardy region is slightly higher (M=6,5) than in the canton of Ticino (M=6,3).

Subgroup	*Mean Lombardy region*	*Mean canton of Ticino*
Efficacy in Student Engagement	*6,5*	*5,9*
Efficacy in Instructional Strategies	*6,5*	*6,5*
Efficacy in Classroom Management	*6,4*	*6,5*
Total	***6,5***	***6,3***

Table 30: Questionnaire, means of the 3 subscales in the Lombardy region and the canton of Ticino

A mean of the three subscales was also calculated for the different teacher subgroups involved in the study (Figure 18).

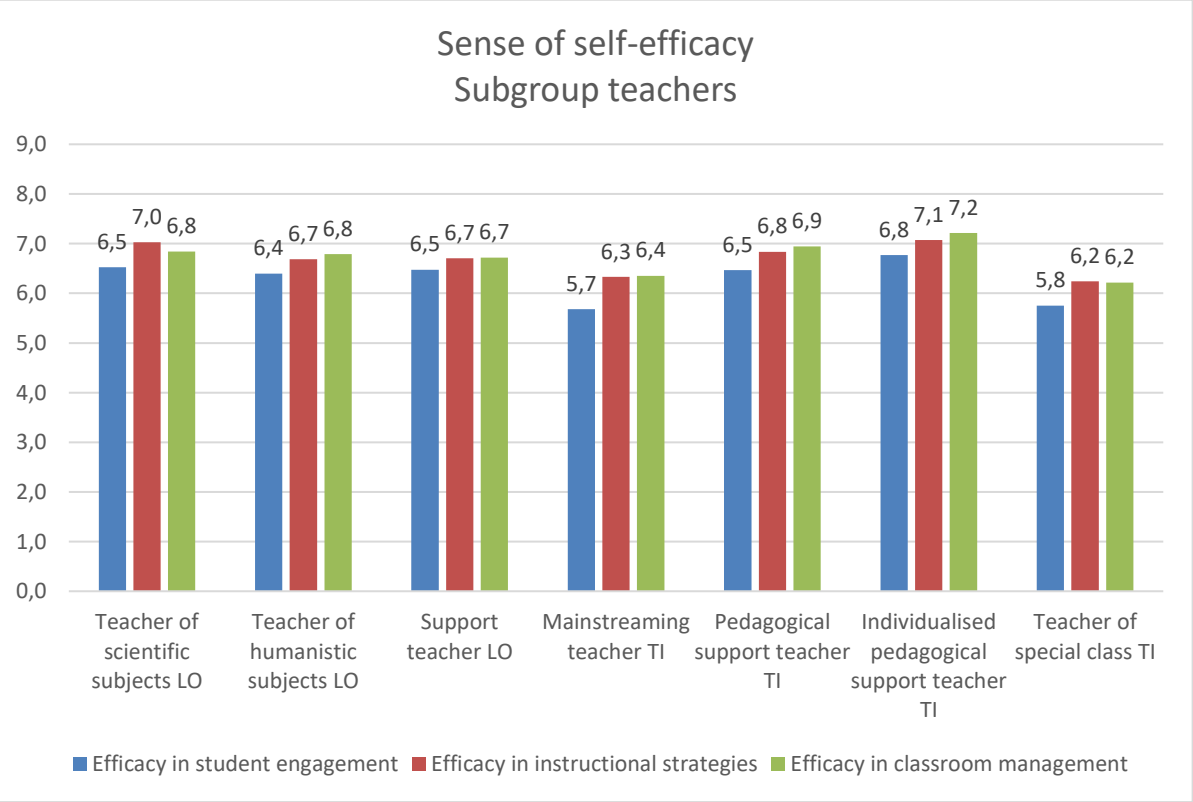

Figure 18: Mean of the questionnaire total scores in subgroups of teachers in the Lombardy region (LO) and the canton of Ticino (TI)

Efficacy in student engagement presents similar score among the sample, with the exception of "mainstreaming teachers" and "teachers of special class", who reported a score below *M*= 6.

The subscale *Efficacy in instructional strategies* presents a similar score between the two areas of the study. "Teachers of scientific subjects" and "Individualised pedagogical support teachers" achieved the highest score with a mean above *M*=7.

In the last scale, *Efficacy in classroom management*, "Individualised pedagogical support teachers" achieved the highest score (*M*= 7,2).

A mean of the three subscales was also calculated for the subgroup "years of experience" in the 2 areas of the study (Table 31).

	Efficacy in student engagement	Efficacy in instructional strategies	Efficacy in classroom management
1-5 year LO	*6,2*	*6,8*	*6,6*
1- 5 years TI	*5,9*	*6,3*	*6,5*
6-10 years LO	*6,4*	*6,4*	*6,3*
6 -10 years TI	*5,7*	*6,7*	*6,8*
11-15 years LO	*6,5*	*6,7*	*7,0*
11- 15 years TI	*6,2*	*6,8*	*6,8*
16-20 years LO	*6,5*	*6,8*	*6,6*
16-20 years TI	*5,9*	*6,6*	*6,8*
21-25 years LO	*6,7*	*6,9*	*7,1*
21-25 years TI	*5,8*	*6,1*	*5,8*
26-30 years LO	*6,7*	*7,3*	*6,7*
26-30 years TI	*5,9*	*6,4*	*6,2*
More than 30 years LO	*6,5*	*6,9*	*7,1*
More than 30 years TI	*6,2*	*6,6*	*6,8*

Table 31: Mean of the questionnaire total scores in "years of experience" subgroup in the Lombardy region (LO) and the canton of Ticino (TI)

In the subscale *Efficacy in student engagement,* teachers of the Lombardy region presented a higher score. In *Efficacy in instructional strategies,* teachers of the Lombardy region had a higher score with the exception of subgroups "6-10 years" and "11-15 years". In *Efficacy in*

classroom management, teachers of the Lombardy region had a higher score with the exception of subgroups "6-10 years" and "16-20 years".

The researcher further investigated the correlation among the 5 teachers with the lowest (↓) and highest (↑) composite score of the interview and the questionnaire, and the specific diagnosis of the child in the areas of the study. The highest cumulative score a teacher can reach is *N= 249.* Table 32 shows the results.

Teachers	**Composite score Interview e questionnaire LO**	**Composite score Interview e questionnaire TI**	**Diagnosis LO**	**Diagnosis TI**
1 ⇧	N= 234	N= 224	Mixed disorder of scholastic skills.	Developmental coordination disorder (DCD) and borderline IQ
2 ⇧	N= 234	N= 224	Mixed disorder of scholastic skills	Intellectual disability and writing disorders
3 ⇧	N= 234	N= 224	Dystonic cerebral palsy with language delay	Visual impairment, blind
4 ⇧	N=233	N=223	Psychosis	Visual impairment, blind
5 ⇧	N= 230	N= 216	Specific expressive language impairment	Hearing impairment
1 ⇩	N= 160	N= 145	Moderate intellectual disability and language delay	Specific language impairment
2 ⇩	N= 158	N= 145	Moderate intellectual disability and language delay	Learning disability
3 ⇩	N= 157	N= 132	Autoimmune disease	Autism spectrum disorder (ASD)
4 ⇩	N= 154	N= 123	Pervasive developmental disorder and mixed specific developmental disorders	Intellectual disability
5 ⇩	N= 140	N= 120	Pervasive developmental disorders	Mobility impairment due to lack of oxygen at birth

Table 32: Teachers highest and lowest score and child diagnosis in the canton of Ticino (TI) and the Lombardy region (LO)

Spearman correlation was calculated and compared between the 2 regions (Table 33). The correlation between attitudes about roles and responsibilities and sense of self-efficacy is stronger in the canton of Ticino.

	Correlations			Spearman's rho
Lombardy region	Questionnaire, sense of self-efficacy	Correlation Coefficient	1,000	,440**
		Sig. (2 tailed)		
		N	63	
	Interview, attitude about roles and responsib.	Correlation Coefficient	1,000	,440**
		Sig. (2 tailed)		
		N	63	
Canton of Ticino	Questionnaire, sense of self-efficacy	Correlation Coefficient	1,000	,521**
		Sig. (2 tailed)		
		N	56	
	Interview, attitude about roles and responsib.	Correlation Coefficient	1,000	,521**
		Sig. (2 tailed)		
		N	56	

Table 33: Spearman correlation between attitude about roles and responsibilities and sense of self-efficacy in the Lombardy region and the canton of Ticino

RQ2

The Lombardy region presented a higher percentage of *Low* and *Middle* in both areas. Ticino presented a higher percentage in *High approach* (Table 34).

Total teachers Lombardy = 63 *Total teachers canton of Ticino = 56*	**Interventionist teaching approach**					
Topics	**Low % LO**	**Low % TI**	**Middle % LO**	**Middle % TI**	**High % LO**	**High % TI**
Assessment	*7,1*	*5,4*	*29,4*	*21,4*	*63,5*	*73,2*
Programming	*4,0*	*3,6*	*27,4*	*21,0*	*68,6*	*75,4*

Table 34: Frequency and distribution of interview scores in the 2 variables in the region of Lombardy (LO) and the canton of Ticino (TI)

In the *Assessment* subscale, teachers of scientific subjects presented a significant low percentage (Figure 19). This means that, compared to the other teacher subgroups, they have a lower biopsychosocial conceptualisation of disability with their identified students. Overall Ticino teacher subgroups presented a higher biopsychosocial approach than the Italian sample. Support teachers presented the highest biopsychosocial approach among the Italian subgroups, and together with individualised pedagogical support teachers reached the highest percentages.

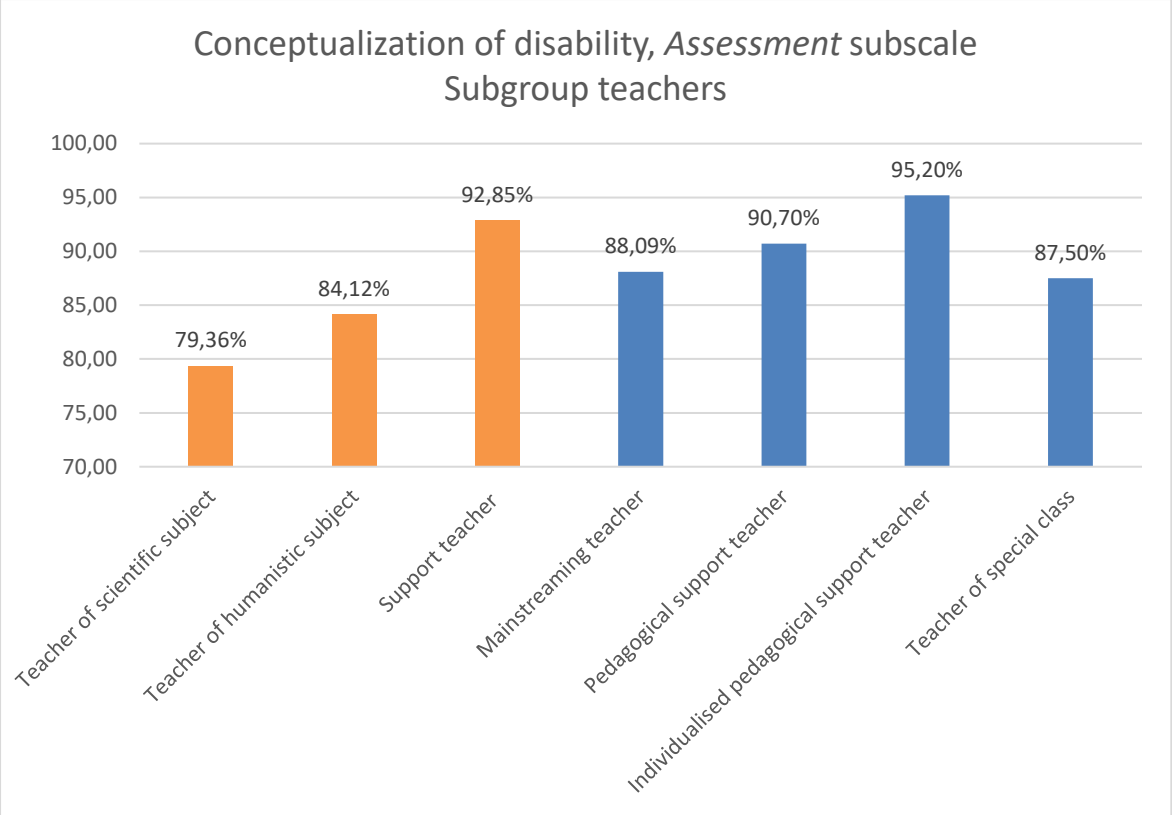

Figure 19: Percentage of Assessment scores in the subgroups of teachers in the Lombardy region (orange) and the canton of Ticino (blue)

In *Programming* (Figure 20) teachers of scientific subjects presented the lowest percentage (84,12%). This means that they are the less interventionist in goal setting and monitoring, class adaptation and teaching techniques. Not surprisingly, teachers of special class achieved the highest percentage. Italian "support teachers" and swiss mainstreaming teachers presented a similar percentage.

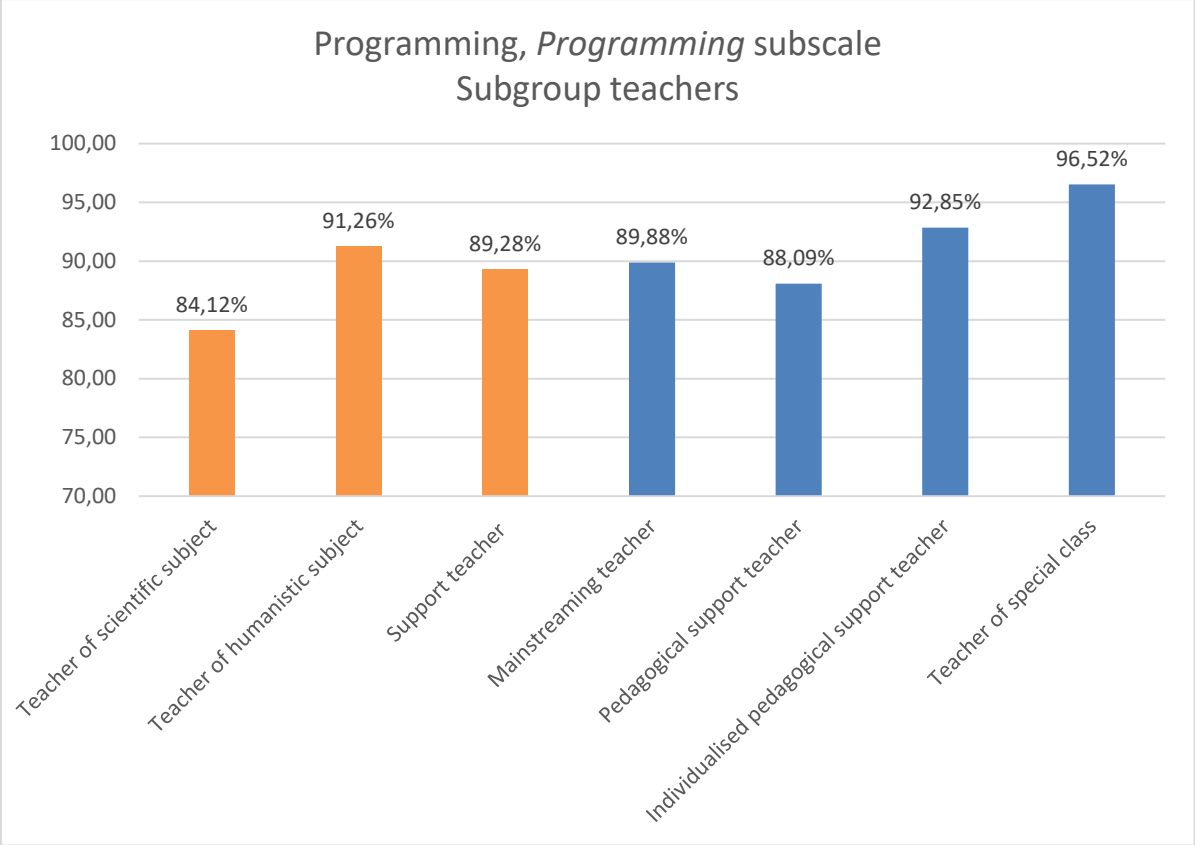

Figure 20: Percentage of Programming scores in the subgroups of teachers in the Lombardy region (orange) and the canton of Ticino (blue)

The Activity Theory framework (Engeström, 2001, 2008) has been used to disaggregate different mediating factors that influence one of the objects of the area of *Programming*: goal setting (including tools, rules, community, and division of labour). In the interviews, teachers were asked additional question on *Programming* regarding goal setting: tools, team, division of labour and legislation. In Lombardy region the legislative top-down approach is reflected in the data results. As required by the Legislation, Law n. 104/1992, the majority of the sampling population (*N*= 62, 98,4%) uses a formal and established tool for setting goals, namely "Individual Educative Plan (IEP)". The team who formally sets the IEP and the goals included only members of the class team, ie regular teachers and support teachers. Every teacher is responsible for their subject, but support teachers assume a "case manager" role. Since the Legislation required an IEP, this may be a factor having an impact on the *High interventionist approach* in *Programming*.

In the canton of Ticino the majority of the sampling population (*N*= 64%) used a mix of informally and formally established tools for setting goals. Of the remaining sample, 20% of

teachers used only formal tools, and a minority (16%) used only informal tools. The team which sets the goals included mainstreaming teachers, pedagogical support teachers and individualised pedagogical support teachers. Pedagogical support teachers and individualised pedagogical support teachers have a major role in the process of setting goals. This finding may be a factor having an impact on *High interventionist approach* in *Programming*.

To investigate whether there is a relationship between the conceptualisation of disability and programming, the researcher used Spearman test with significance set at the .01 level (2-. tailed). Spearman correlation (Table 35) is higher in the Lombardy region.

	Correlations			**Spearman's rho**
Lombardy region	Assessment	Correlation Coefficient	1,000	,608**
		Sig. (2 taile)		
		N	63	
	Programming	Correlation Coefficient	1,000	,608**
		Sig. (2 taile)		
		N	63	
Canton of Ticino	Assessment	Correlation Coefficient	1,000	,495**
		Sig. (2 taile)		
		N	63	
	Programming	Correlation Coefficient	1,000	,495**
		Sig. (2 taile)		
		N	63	

**. Correlation is significant at the 0.01 level (2-.tailed)

Table 35: Spearman correlation between Assessment and Programming in the Lombardy region and the canton of Ticino

CHAPTER 5: DISCUSSION AND CONCLUSION

In this comparative study, the researcher examined the correlation among selected factors relevant for teachers practice in the context of inclusive education in the Lombardy region and the canton of Ticino. The researcher correlated the attitudes of teachers about their roles and responsibilities regarding a specific child identified, and the general sense of self-efficacy of the teachers. Furthermore, it correlated the conceptualisation of disability with the process of programming. After examining the results data of 119 teachers, the statistical analysis concluded that there is a positive correlation between the variables studied. The correlation between attitudes about role and responsibilities and programming is stronger in the canton of Ticino than in the Lombardy region. On the other side, the correlation between the conceptualisation of disability and programming is stronger in the Lombardy region than in the canton of Ticino.

5.1 ADDRESSING THE RESEARCH QUESTIONS

RQ1

"Is there a relationship between the sense of self-efficacy of the teachers and their attitude about their roles and responsibilities in working with students with disability?

- How do teachers consider their attitudes to roles and responsibilities with their students with disability?
- How do teachers perceive their sense of self-efficacy?"

The assumption behind the research question is that the attitude of teachers about their roles and responsibilities, and their sense of self-efficacy might predict the work of teachers in the practices.

The variable "attitude of teachers about their roles and responsibility", renamed by the researcher as "interventionist teaching approach", is not easy to apply to the real world and convert to concrete behaviour. For this study, the researcher used three tools, described in Chapter 3, that transfer and relate the concepts investigated into concrete behaviour and work task. The instruments used were an adapted version of the Pathognomonic–Interventionist (P–I) Interview (Jordan, Schwartz, & McGhie-Richmond, 2009; Jordan & Stanovich, 2001;

Stanovich & Jordan, 1998), Teacher Sense of Efficacy Scale (TSE) Long Form questionnaire developed by Tschannen-Moran & Woolfolk Hoy (2001, 2007), and The Activity Theory framework (Engeström, 2008).

The interview permitted to examine the attitudes of teachers as grounded in the narrative descriptions of their practices (Jordan, Schwartz, and McGhie-Richmond, 2009, p. 538).

> Requested to relate their work over the preceding school year with two students with special education needs, teachers revealed a range of beliefs about disability as well as understandings of their roles and responsibilities for students with special education needs, and a diversity of practices. Teachers described in chronological sequence the steps they have taken over a school year, in the manner of a narrative story. According to Engel (1993), during their retelling, teachers reconstruct their recalled experiences to reflect their beliefs about their roles and responsibilities in meeting the needs of their students with special education needs. They report their students' characteristics, the decisions they made, their intentions and reasons for doing so, and their judgements about the results, in the context of their broader beliefs (Polkinghorne, 1988).

In a study conducted by Jordan and Stanovich (2001) the nine teachers involved in the study were grouped on the basis of their Pathognomonic-MID-Interventionist score. The teachers were equally distributed among the spectrum: three teachers fell into the Pathognomonic attitude, three under the MID attitude and finally the last three teachers fell into the Interventionist approach. In this study teachers falling under the Interventionist area represents the majority of the sample. The researcher assumed that the two areas investigated in the study promoted an inclusive framework, therefore teachers may be more interventionist with their student with disability.

Overall, teachers in the 2 areas of the study, Lombardy region and canton of Ticino, presented a high interventionist approach and a high sense of self-efficacy.

However, there are some statistical differences which are interesting to analyse

The correlation between the 2 units of the analysis namely "attitude of teachers about their roles and responsibilities", and their "sense of self-efficacy" in the two areas of the study is reflected in the Spearman's rho correlation. In the canton of Ticino, the high interventionist approach is coherent with a high sense of self-efficacy. In the Lombardy region the interventionist approach is lower while the sense of self-efficacy is high. In the canton of

Ticino, the attitudes of teachers about their roles and responsibilities are more coherent with their sense of self-efficacy (Spearman's rho= 0,521), while in the Lombardy region the lower interventionist approach made the correlation less strong (Spearman's rho= 0,440).

Teachers in canton of Ticino tend to be slightly more effective with their identified children. Teachers who vacillate between one or the other end of the continuum, showing a *MID* approach, are more represented in the Lombardy region. In the interview scale, low scores (1) reflect a *Low interventionist* teaching approach while high scores (3) reflect a *High interventionist* approach. Mid-range score (2) are classified as middle perspective.

The *MID* attitudes are identified with teachers who "struggle to resolve the paradox between their beliefs and the policies and procedures that favoured one or the other end of the P–I continuum" (Jordan et al. 2009, p. 538). Jordan et al. (2009) in their study reported that 25% of mainstreaming teachers reported a pathognomonicbeliefs, while 20% fell into an interventionist beliefs. Approximately 55% of the teachers held MID beliefs; they reported characteristics of both ends of the continuum and they tended to vacillate between them.

The researcher looked at those MID teachers also from another perspective: the education system in which the teachers operate.

Hedderich (2015) emphasizes the importance of contextual factors. In a study conducted with ten special education teachers the finding demonstrated that the stress of teachers, and their coping strategies depend from contextual factors: workload, work organization, framework conditions, finally, cooperation and collaboration with colleagues.

As described in Chapter 2, policies and financial resources are very fragmented in Italy. This had a negative impact in school practices and therefore on the quality of inclusive education. Many teachers had to change roles. This might have created some dilemma in terms of teacher identity and teacher roles and responsibilities. Teachers had to change among different situations, with different students and different schools, with different practice; this may have destabilised their identity, and they might have struggled about the tasks to accomplish in the practice. The researcher considered that "Learning is bound to the situations in which learning takes place, and practitioners need to be able to reflect on new situations to apply what they have learnt" (Hollenweger, Pantić, and Florian, 2015, p. 15). But the researcher wanted to take into account also the difficulties originating when the knowledge of teachers is constantly transferred from one setting to another due to change of policies. Surprisingly, the data showed that less experienced teachers, ie 1-5 years of teaching, presented the highest interventionist teaching approach; the researcher assumed that these teachers, due to the limited amount of years of teaching, did not experience as many changes as more experienced teachers did.

The understanding of teachers and support teachers of their roles and responsibilities can be very taught in the Lombardy region, and more generally in Italy. As pointed out in chapter 2, due to the fragmentation of policies, primary schools faced a great number of major changes, and many mainstreaming teachers were reassigned to substitute absent teachers in different schools or were reassigned to be support teachers. The researcher assumed that this fragmentation is reflected in the data, and it may be a factor explaining the limbo attitude about roles and responsibilities. Teacher profiles seems to be an identity under constant development (Rondanini & Capaldo, 2013).

The fragmented mind-frame about the roles and responsibilities of teachers that policies create can involuntary construct a mind-frame in teachers, who may consider themselves more as objects than as agents of change.

Top-down approaches may not be fully compatible with the specific needs of inclusive schools; those should design the social and physical environment to meet the specific needs of their students (Hollenweger et. al 2015). As argued previously, policies and legislation in the Lombardy region may create barriers for the implementation of inclusive education in the practice. In the canton of Ticino, local and cantonal authorities give schools and teachers the necessary agency to create an inclusive school context based on the needs of the students.

> This approach to coordinate actions between the stakeholders rather than implement a top-down approach is referred to as "Educational Governance". Through partnerships and networking, existing ways of governance can be addressed, discussed and where possible adjusted. Here, teachers become agents for social change affecting partners beyond the school and helping to develop inclusive practices in the community. (Hollenweger et. al 2015, p. 62).

In the canton of Ticino, the macro level of policies follows a bottom-up approach, and since 2008 Swiss cantons had more flexibility to establish inclusive models of schooling that better match their demographic and geographic structure. The flexibility drives school to accommodate the different needs of the child with different and flexible forms of provision. While in term of policies the Swiss canton is characterised by flexibility, the Lombardy region is characterised by fragmentation.

In the canton of Ticino teachers within the context of inclusive education are more structured according the role and responsibilities they have to accomplish in schools, but those roles and responsibilities were established with the aim to address the different needs of the children track.

It is not possible for mainstreaming teachers to turn into pedagogical support teachers and individualised pedagogical support teachers. Every teacher has a clearer understanding of their roles and responsibilities and those are not mixed up.

The profile of pedagogical support teacher (PST) and individual pedagogical support teacher (IPSP) is similar to the Italian support teachers, but different in one specific aspect: the Swiss teachers are not responsible for the whole class, but they focus only on the child to whom they have been assigned. The fact that support teachers in the Lombardy region are also responsible for the whole class, and not only for the child identified, may create some dilemmas in their roles and responsibilities, since those have to be negotiated with the mainstreaming teachers. In term of cooperation and communication among the two teachers, this may create some challenges, but on the other side support teachers are not considered as second-class teachers but their status is equal to mainstreaming teachers. This is also stated in the legislation Law n. 104/1992.

The fact that mainstreaming teachers and support teachers have an equal role at policy level brings a relevant improvement in terms of equal professional standing. On the other side it may create some ambiguities about the roles and responsibilities toward the identified child and the whole class. According to Hedderich (2015) the condition of sharing common roles and responsibilities among mainstreaming teacher and support teacher is a very challenging issue; however, the cooperation among them is a relevant prerequisite factor for an effective form of inclusive education.

In Ticino, teacher roles and responsibilities are more structured, and every teacher seems to have a clearer understanding of their roles and competences. The division among PST and IPSP according to a low-high functional profile and the number of hours spent in the class structured their role with a specific child.

The researcher considered another relevant factor that may have an impact on the finding, which is partially connected with the understanding provided above. The data can be explained through the *dilemmas* (Norwich, 2008a, 2008b, 2009, 2010). The absence of the *location dilemma* in the Italian context, due to a strict and not permeable top-down inclusive approach, and, on the other side, the flexible *location dilemma* in the canton of Ticino.

Whereas in the canton of Ticino the location dilemma is more flexible since there are different forms of schooling for students with disability, the Lombardy region follows a one-track model.

In the Lombardy region, the identification process of a child with difficulties in learning is based on a diagnostic procedure. For a child having a diagnosis of disability, this translates into being entitled to additional support, so that the child can have a support teacher for a certain number of hours. The diagnosis of disability does not provide information on the functioning profile, and the fact that a child has a low or high incidence of disability is not relevant for the location dilemma, since the child goes "automatically" to a mainstreaming setting. The researcher brought forward the hypothesis that this process lacks a real evaluation of the support ad provision that the child should require to be fully included in a mainstreaming context.

The support can be defined as the resources and strategies that aim to promote the development, education, interests, and personal well-being of a subject and that enhances human functioning in a holistic perspective, including the contextual factors (Schalock et al., 2010). The researcher argued that in Lombardy region the framework behind the identification and provision process should move toward a more support-focused model.

Mainstreaming and support teachers may have included in their class children with very severe disability, but support teachers may not have been allocated for the number of hours required for the child to stay in a mainstreaming class, because the Ministry of Education could not allocate the necessary funds. This means that for some hours the high demanding child may sit in mainstreaming class without the support of a support teacher.

On the other side, due to the inconsistency of the diagnostic criteria, many children may have unmet needs because they do not belong to the traditional group of children with disabilities. For example, according to the legislation, Law n. 104/1992 a child with Attention Deficit Hyperactivity Disorder (ADHD) is not considered as disabled, and therefore is not entitled to having support teachers. However, in terms of educational needs, the child may require different forms of support. In the Lombardy region teachers may identify needs that go beyond what can be achieved through their expertise.

In the canton of Ticino, on the other side, the process of inclusive education in the *location dilemma* is not at one track, but according to the difficulties of the child, they can attend a special class, special school, or mainstreaming class. The area of unmet support is very low in the canton of Ticino. In the first attempt of this study, the researcher planned to include children at risk, but due to the lack of those children in the Swiss canton, it has been decided to just focus on identified children.

While in the Lombardy region some teachers may feel less interventionist due to the fact that some needs may go beyond their expertise, in the canton of Ticino teachers may feel as

more active agent and therefore be more interventionist. The researcher assumed that the needs that go beyond the expertise of Italian teachers may be related to changes in the legislation.

The findings show that, especially in Lombardy region, translate the policies in classroom setting it's a very complicated task for teachers. Each "level": "macro" of policies and "micro" of teachers, might develop its own view related to disability.

The researcher considered that the ICF-CY (WHO, 2007) provides a conceptual framework to analyse different disability-related information in education systems. The fragmentation between the different levels can be partially overcomes as it creates a unifying framework and links between different professional and practices.

The researcher considered that the results can be explained also through the sampling.

In the canton of Ticino there is a higher percentage of teachers specialised in working with students with disability. Pedagogical support teachers, individualised pedagogical support teachers, and teachers of special classes represented 50% of the sample population, while support teachers in the Lombardy region represented 33% of the population. From the perspective of education policies, it is relevant to consider the positive impact that the type of training has on the attitudes and practices of teachers. The Italian subgroup also included teachers of scientific subjects; those teachers were the less interventionist among the different subgroup.

The researcher believes that also the low versus high functioning profile of the student can have an impact on the understanding of roles and responsibilities of teachers. The children included in the study were identified by the legislation. In the canton of Ticino, children with specific learning disabilities can be included in the class with the support of PSP. In the Lombardy region those children are considered high functioning profile and are included in mainstreaming class but without the support of a support teacher, as they fall under the Law n. 170/2010. The children were therefore not included in the study, since the researcher focused only on children identified by the Law n. 104/1994.

Whether in the variable *attitudes about roles and responsibilities* teachers in the canton of Ticino presented a higher interventionist approach, teachers in the Lombardy region presented a higher *sense of self-efficacy*. Teachers in the Lombardy region, according to their

"self-perception of competence" (Tschannen-Moran & Hoy, 2007, p. 946), feel more effective in providing instructional strategies, in classroom management, and in engaging their students.

The tool Teacher Sense of Efficacy Scale (Tschannen-Moran & Woolfolk Hoy, 2001, 2007), investigated the general sense of self-efficacy, whereas the interview focuses on a specific child with disability. The researcher considered that the specific functioning profile of the child may have an impact upon *attitudes about roles and responsibilities of the teachers*. Some relevant data from the study might confirm the hypothesis of the researcher. Teachers teaching in special classes present the lowest score in almost all the subscale of the questionnaire: *Efficacy in classroom management*, *Efficacy in student engagement* and *Efficacy in instructional strategies.* Children included in special classes usually present a lower functioning profile. Teachers teaching in special classes may consider a challenging task to be effective with these children.

In the study conducted by Tschannen-Moran and Woolfolk Hoy (2007) among 255 novice and careers teachers, teachers displayed a higher sense of self-efficacy comparing to the results of this study. Experienced teachers rated themselves higher (M= 7.29) on overall self-efficacy than novice teachers (M= 6.87). Teachers in Lombardy region (M=6.5) and teachers in canton of Ticino (M= 6,3) presented a lower sense of self-efficacy, even compare with novice teachers.

RQ2

The second research question was the following:

"Is there a relationship between the conceptualisation of disability and programming of the teachers?

- How do teachers conceptualise the disability of the identified child?
- What teachers do in order to adapt the context to the needs of the students? Eg how do the teachers adapt goal setting, class accommodation, differentiated instructions?"

The correlation between the "conceptualisation of disability" and "programming" is stronger in the Lombardy region than in the canton of Ticino.

According to the data, in the conceptualisation of disability teachers in the canton of Ticino have a more biopsychosocial approach (73,2%) than their Italian colleagues (63,5%). Teachers

in the canton of Ticino appear also to be more effective in adapting and individualising goals and curricula, making accommodations to classroom and teaching techniques, and in monitoring student progress with regard to goals.

The researcher tried to provide an understanding of the results. As mentioned above, teachers in the canton of Ticino had a higher biopsychosocial and interventionist approach in programming with their students with disability. This could be related to some factors. Firstly, as mentioned above, for the higher percentage in the sample of teachers specialised in working with students with disability. Pedagogical support teachers, individualised pedagogical support teachers, and teachers of special classes represented 50% of the sample population, while support teachers in the Lombardy region represented 33% of the population. From the perspective of education policies, it is relevant to consider the impact that the type of training has on the attitudes and practices of teachers. The Italian subgroup also included teachers of scientific subjects; these teachers were the least interventionist among the different subgroups.

The researcher formulated some hypothesis to provide an understanding of the higher correlation among the two variables in the Lombardy region.

Teachers may "construct" their conceptualisation of disabilities of a child by referring to different concepts, such as having relational problem, low performance, low socio-economic status etc. The conceptualisation of disability may include an explicit explanation of why a child has been allocated additional support. These conceptualisations can form the rational basis for the needs, educational goals, and provision listed in the IEP (Individual Educative Plan). The conceptualisation can be also influenced by policies.

The conceptualisation of disability may refer to a specific and common approach of responding to educational needs of certain groups of students. For example, children with autism spectrum disorders usually require stable routines, the use of visual learning, quiet classroom setting, etc.

The conceptualisation of disability can be influenced by the provision. On other words, how the difficulties of the child are addressed may have an impact on how it is conceptualised.

The tasks of *Assessment* and *Programming* are very interrelated in the Lombardy region, both at policy level and class level. A relevant finding from the interview was related to IEP, where the legislative top-down approach is once again reflected in the data results. The Legislation, Law n. 104/1992, requires teachers to fill out a formal established tool for setting goals, namely the "Individual Educative Plan". The IEP listed, among other areas, goal setting, class accommodation provision, and different instructions. The researcher assumed that the

conceptualisation of disability can be embedded with the provision, specifically with the area of *Programming,* and with the location, which is mainstreaming class. *Programming* includes adapting and individualising goals and curriculum, making accommodations both to the classroom and to teaching techniques, and monitoring student progress. All these forms of support have to be listed in the IEP.

According to the researcher, the diagnosis and the conceptualisation of disability related to eligibility criteria may have an impact on the way on which the needs are met, ie the provision. This assumption, together with the national policy that requires the preparation of the IEP, may have a positive impact upon the correlation among the two variables. The data gathered during this study suggest that teachers develop different form of conceptualisations of disability. The conceptualisation may be influenced by the education system in which the teachers work. The ways disability was conceptualised and addressed were related to mind-frame available to teachers which are influenced by the education system. The relevance of the context and contextual factors (WHO, 2001) have been explained in Chapter 1.

In the Lombardy region, the *Assessment* is directly connected to *Programming* both at Policies level and at class level for two issues. The Matrix (Hollenweger, 2010) shows the connection (Figure 21).

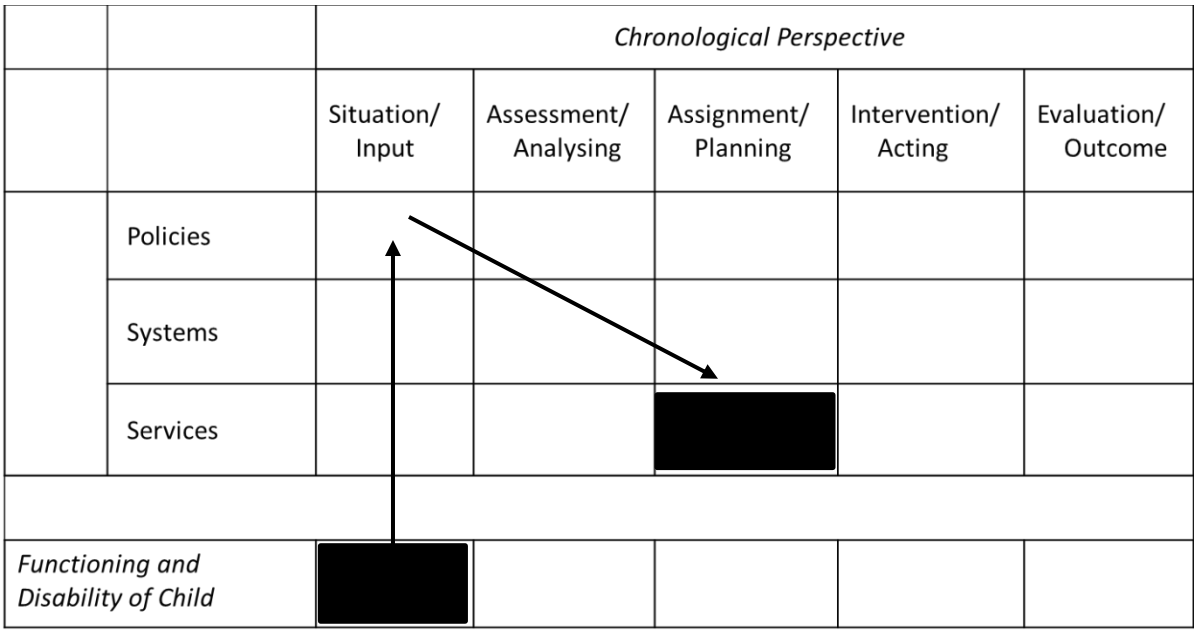

Figure 21: Matrix analysing the use of different disability categories and types of problems in the Lombardy region

The conceptualisation of disability at policy level is not a prerequisite factor for changing the form of provision in term of location and tool to meet the needs of the child. Every need of every child with different diagnosis and low or high functioning profiles are always addressed with two form of provisions: IEP and inclusive classes. IEP and inclusive classrooms are not depending on the functioning profile of the child. The fact that a child with disability has to attend a regular class and has an IEP is not negotiable. The researcher wants to specify that apart from IEP, the responses in meeting the needs of the child involve different interventions in the Italian context. But those responses vary, and depend on a decision by the teacher. Inclusive location and IEP are on the contrary mandatory.

The process can be summarized as following: independently from the results of the assessment, the needs of the child can be addressed with similar form of *Programming* listed in an IEP, in an inclusive setting.

The situation in the Swiss canton is different. *Assessment* and *Programming* are not so embedded in the legislation. Ticino does not have a top-down approach but rather a bottom-up one. The process can be summarized as following: according the results of the assessment, the needs of the child can be addressed with different form of *Programming* listed in different tools, in different settings. The Matrix (Hollenweger, 2010) shows the process (Figure 22).

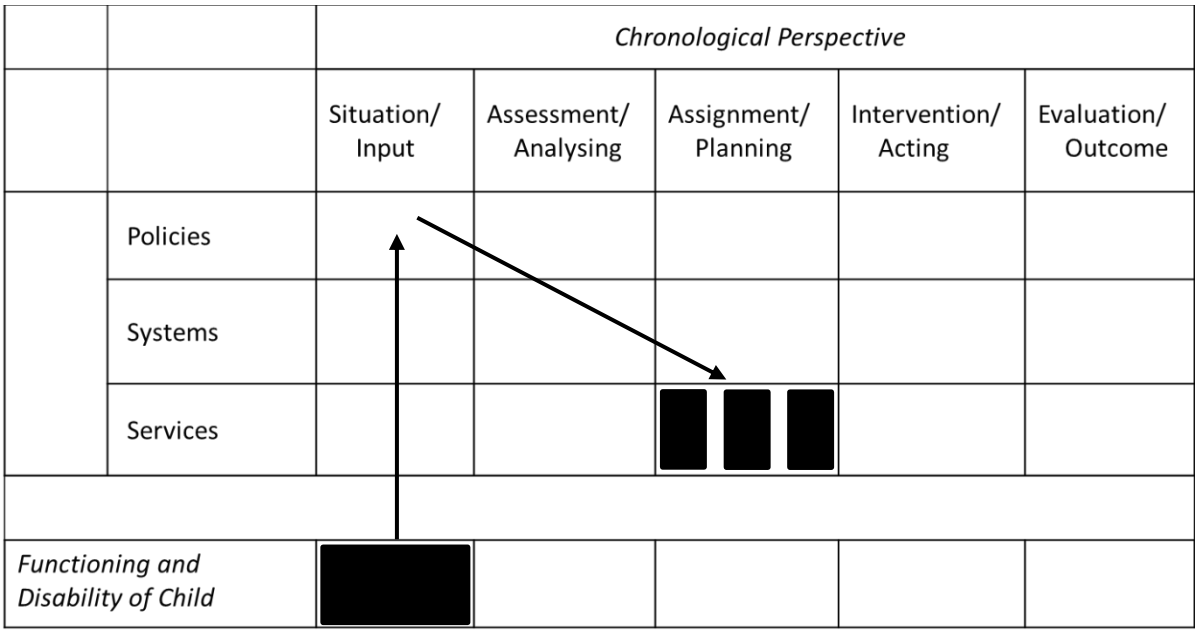

Figure 22: Matrix analysing the use of different disability categories and types of problems in the canton of Ticino

The canton provides different forms of provision, taking into account the location, and different form of IEPs. Students can be included in regular classes with the support of PST or IPST, or they can also attend a special class while being involved for some activities with the regular class.

The researcher considered another relevant factor that may have an impact on the finding.
In the canton of Ticino the sampling population used a mixed of informal and formal established tools for setting goals in an IEP. Of the remaining sample, 20% of teachers used only formal tools, and a minority (16%) used only informal tools.
The fact that a student having a certain need will be assigned to a certain intervention is not so mono-dimensional in the canton of Ticino.
While the conceptualisation of disability according to a top-down approach in the Lombardy region drives to a unique form of inclusive location, and the IEP serves the same purpose, in the canton of Ticino the situation seems to be more fragmentated. There appears to be different forms of provisions in terms of location, the IEP can also have different forms, and the researcher claimed that can be used for different purposes.
In the canton of Ticino the process of IEP seems to be less structured; IEP in the two countries may have different types of information and serve different purposes.
In the canton of Ticino there were various forms of individual educative plan being used in the different schools. Teachers used different names when referring to Individual Educative Plan. Example of these are: “pedagogical plan”, “specific pedagogical plan”, “individualized pedagogical plan”. The researcher assumed that the different tools may include different types of information and may serve different purposes. The different purpose may be coherent with the different form of inclusive education established in the swiss canton.
The researcher considers that the fragmentation of the different form of IEPs may be reflected in the findings. The contents of *Programming* which includes adapting and individualising goals and curriculum, making accommodations both to the classroom and to teaching techniques, and monitoring student progress, are structured in a unique form in Lombardy region: the IEP. On the contrary, in the canton of Ticino *Programming* can be structured with different tools, that may serve for different purpose.

5.2 CONTRIBUTION TO KNOWLEDGE, LIMITATION AND IMPLICATION FOR FURTHER RESEARCH

This research started from a recognition of the literature. The researcher aimed to provides the theoretical framework for understanding the concepts of the study. In the previous chapter the researcher presented the finding and the results.

The methods used and the empirical findings reported in this study make a relevant contribution to the existing body of knowledge in the fields of the study.

The area of attitudes about roles and responsibilities is mainly characterised by single- country studies (Jordan, Schwartz, & McGhie-Richmond, 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998) which may not include the impact of different education systems and contextual factors in the construct-process of attitudes about roles and responsibilities.

The researcher went beyond the *Low, MID,* and *High Interventionist approaches* (Jordan, Schwartz, & McGhie-Richmond, 2009; Jordan & Stanovich, 2001; Stanovich & Jordan, 1998) and tried to explain how the attitudes about roles and responsibilities can be represented and interrelated at *macro*, *meso,* and *micro level*.

By answering the research questions the researcher drawn the "attitude about roles and responsibilities", the sense of self-efficacy, the "conceptualization of disability" and "programming" related to teachers, and outlined contextual educational difference and similarities in the two areas of the study.

Another contribution to knowledge is related to the methodology and the instruments. This study represents one of the firsts attempts to include the Activity theory framework (Engeström, 2001, 2008) in an interview format. The researcher disaggregated different mediating factors that influence one of the objects of the area of Programming: goal setting.

This chapter presented some issues that were considered a limitation in this study.

Teachers have been asked to fill out a questionnaire for exploring their sense of self-efficacy and they were interviewed with the intention of investigating their attitude about roles and responsibilities in working with students labelled as disabled by the legislation. The practices of teachers were therefore elicited by the researcher and her team; the researcher did not carry out classroom observation and students were not involved in the study.

Despite its high reliability, the rating score of the interview has created some dilemma in coding. The inter-rater reliability process among the research team was considered fundamental for the reliability of the results.

The interview was a challenging tool to use also for other reasons. Since constructs (self-esteem, aggression, emotional shortage etc.) are not "visible", with the aim to separate the reality plan from the interpretative one, during the interview the researcher tried to convert teacher description into "operational language" and concrete behaviour. For example, when a teacher was describing a child and said eg "Picasso was aggressive…" the researcher and her team asked to convert the construct to concrete behaviour eg "Picasso usually bites his classmates...". The same approach has been used when teachers were describing their practices. When a teacher said that they "…accommodate the classroom for Frida Kahlo", the researcher asked to convert class accommodation to concrete examples and concrete behaviours. For example: "My desk as a teacher was fixed, but every two weeks I planned a change in the seating pattern…".

The way in which teachers were asked to describe their practices helps to separate real phenomena by the inferences. This process was also useful for the data analysis; it helps the researcher to extract the relevant contents, map them with the relate construct and link them with the three interventionists teaching approach.

This behavioural description helps therefore the researcher in designing a mental map of the contents related to each construct of the study.

The rich empirical data collected could allow for other and further analyses.

In a future study, it would be interesting to explore the impact of the functioning of the child in the variable investigated in the study. Additionally, a regression analysis among the variable would be also interesting to carry out, especially between "attitudes about roles and responsibilities" and the "sense of self-efficacy", and "Assessment" and "Programming."

REFERENCES

Alderson, P., & Morrow, V. (2004). *Ethics, social research and consulting with children and young people*. Ilford: Barnardos.

Allen, D., & Fraser J.B. (2007). Parent and student perceptions of classroom learning and environment and its association with student outcomes. *Learning Environments Research*, *10*(1), 67-82.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.

Anastasiou A., Kauffman J. M., & Di Nuovo S. (2015). Inclusive education in Italy: description and reflections on full inclusion, *European Journal of Special Needs Education*, *30*(4), 429-443.

Anderson, R. N., Greene, M. L., & Loewen, P. S. (1988). Relationships among teachers' and students' thinking skills, sense of efficacy, and student achievement. *The Alberta Journal of Educational Research*, *34*, 148-165.

Arnesen, A., Allen, J., & Simonsen, E. (eds.) (2009). *Policies and Practices for teaching socio-cultural diversity. Concepts, principles and challenges in teacher education*. Strasbourg: Council of Europe.

Ashton, P. T., & Webb, R. B. (1986). Teachers' sense of efficacy, classroom behavior, and student achievement. In P. T. Ashton, & R. B. Webb (Eds.), *Teachers' sense of efficacy and student achievement* (pp. 125-144). New York, London: Longman.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215.

Bishop, R. (2003). Changing Power Relations in Education: Kaupapa Maori messages for mainstream education in Aotearoa/New Zealand [1]. *Comparative Education*, *39*(2), 221-238.

Black-Hawkins, K. Florian, L., & Rouse, M. (2007). *Achievement and inclusion in schools*. London: Routledge.

Blömeke, S., Felbrich, A., Müller, C., Kaiser, G., & Lehmann, R. (2008). Effectiveness of teacher education: State of research, measurement issues and consequences for future studies. *Mathematics Education*, *40*, 719-734.

Bundesgesetz über die Invalidenversicherung, IVG. (1959). Retrieved from https://www.admin.ch/opc/de/classified-compilation/19590131/index.html#fn1. Accessed on February 15, 2019.

Bundesgesetz über die Beseitigung von Benachteiligungen von Menschen mit Behinderungen, Behindertengleichstellungsgesetz, BehiG. (2002). Retrieved from https://www.admin.ch/opc/de/classified-compilation/20002658/index.html. Accessed on February 15, 2019.

Bundesverfassung der Schweizerischen Eidgenossenschaft, status 1 January 2008. (2008). Retrieved from https://www.admin.ch/opc/de/classified-compilation/19995395/index.html. Accessed on February 15, 2019.

Canevaro, A. (2007). *L'integrazione scolastica degli alunni con disabilità.* Trento: Erickson.

Cassidy, S. (2004). Learning styles: An overview of theories, models, and measures. *Educational Psychology*, *24*(4), 419-444.

Cohen, J., McCabe, L., Michelli, N., & Pickeral, T (2009). School climate: Research, policy, practice and teacher education. *Teachers College Record*, *111*(1), 180-213.

Creswell, J.C. (2009). *Research Design: Qualitative, Quantitative, And Mixed Methods Approaches* (3rd ed.). Thousand Oaks, CA: Sage.

Crow, G., & Wiles, R. (2008) *Managing anonymity and confidentiality in social research: the case of visual data in community research.* London, GB: Economic & Social Research Council.

D'Alessio, S. (2011). *Inclusive education in Italy: A critical analysis of the policy of integrazione scolastica*. Rotterdam, Netherlands: Sense Publishers.

Daniels, H., Edwards, A., Engeström, Y., Gallagher, T., & Ludvigsen, S. R. (2009). *Activity Theory in Practice: Promoting learning across boundaries and agencies*. London: Routledge.

Devecchi, C., Dettori, F., Doveston, M., Sedgwick, P., & Jament J. (2012). Inclusive Classrooms in Italy and England: The Role of Support Teachers and Teaching Assistants. *European Journal of Special Needs Education, 27*, 171-184.

Dozio, E. (2001). Evoluzione della politica scolastica sull'insuccesso e il disadattamento: il caso del Canton Ticino. *Rivista svizzera di scienze dell'educazione*, *23*(2), 237-258.

EDK [Swiss Conference of Cantonal Ministers of Education]. (2007). *Interkantonale Vereinbarung über die Zusammenarbeit im Bereich der Sonderpädagogik. [Inter-Cantonal Agreement on the coordination in the area of special education.]* Bern, Switzerland: EDK. Retrieved from https://www.edudoc.ch/static/web/arbeiten/sonderpaed/konkordat_d.pdf. Accessed on February 15, 2019.

EDK [Swiss Conference of Cantonal Ministers of Education]. (2011). *Standardisiertes Abkla rungsverfahren (SAV): Instrument des Sonderpa ̈dagogik- Konkordats als Entscheidungsgrundlage fur die Anordnung verstarkter individueller Massnahmen. [Standardized eligibility procedure: Instrument of the special education concordat as the decision basis to allocate reinforced individual provision.]* Bern, Switzerland: EDK.

Engeström, Y. (2001). Expansive learning at work: toward an activity-theoretical conceptualization. *Journal of Education and work*, *14*(1), 133-156.

Engeström, Y. (2008). *From teams to knots. Activity-theoretical studies of collaboration and learning at work*. Cambridge: Cambridge University Press.

European Agency. (2010). *Teacher Education for Inclusion – International Literature Review*. Brussels, Belgium: European Agency for the Development of Special Needs Education.

European Agency. (2011). *Participation in inclusive education, a framework for developing indicators*. Brussels, Belgium: European Agency for the Development of Special Needs Education.

European Commission. (2007). *Communication from the Commission to the Council and the European Parliament: Improving the Quality of Teacher Education.* Luxembourg: Office for Official Publications of the European Communities.

European Commission. (2014). *Education and training monitor 2014, Italy.* Luxembourg: Office for Official Publications of the European Communities.

Evans, C. W. (2006). Towards inclusive teacher education: Sensitizing individuals to how they learn. *Educational Psychology*, *26*(4), 499-518.

Feuser, G. (1998): Gemeinsames Lernen am gemeinsamen Gegenstand. In: Hildeschmidt, In I. Schnell (Eds.): *Integrationspädagogik. Auf dem Weg zu einer Schule für alle* (pp.19-35). Weinheim: Juventa Verlag.

Feuser, G. (2001): Prinzipien einer inklusiven Pädagogik. *Behinderte*, *2,* 25-29.

Feuser, G. (2012a). Menschenbilder – Ansichten und ihre Auswirkungen innerhalb der sonderpädagogi- schen Beziehung. Retrieved from http://www.georg-feuser.com/conpresso/_data/Feuser_-_Menschenbilder_Ringvorlesung_ETH_UZH_03_20122.pdf . Accessed on February 15, 2019.

Feuser, G. (2012b). Eine zukunftsfähige „Inklusive Bildung" - keine Sache der Beliebigkeit!. Retrieved from http://www.georg-feuser.com/conpresso/_data/Feuser__G._Zukunftsf_hige_Inklusive_Bildung_HB_06_06_2012.pdf. Accessed on February 15, 2019.

Florian, L. (2008). Special or inclusive education: Future trends. *British Journal of Special Education, 35*, 202-8.

Friend, M., Cook, L., Hurley-Chamberlain, D., & Shamberger, C. (2010). Co-Teaching: An Illustration of the Complexity of Collaboration in Special Education. *Journal of Educational and Psychological Consultation*, *20*, 9-27.

Gale, T. (2000). Rethinking social justice in schools: how will we recognize it when we see it? *International Journal of Inclusive Education*, *4*(3), 253-269.

Giangreco, M. F., Dennis, R. E., Edelman, S. W. A., & Cloninger, C. J. (1994). Dressing your IEPS for the general education climate: analyses of IEP goals and objectives for students with multiple disabilities. *Remedial and Special Education*, *15*(5), 288-296.

Giangreco, M. F., & Doyle, M. B. (2012a). Integrazione Scolastica in Italy: A Compilation of English-Language Resources. *International Journal of Whole Schooling, 8*(1), 64-105.

Giangreco, M. F., Doyle M. B., & Suter, J. C. (2012b). Demographic and Personnel Service Delivery Data: Implications for Including Students with Disabilities in Italian Schools. *Life Span and Disability: An Interdisciplinary Journal, 15*, 97-123.

Goddard, A. (1997) The role of individual education plans/programmes in special education: a critique. *Support for Learning*, *12*(4), 170-174.

Hansen, J. H. (2012). Limits to inclusion. *International Journal of Inclusive Education*, *16*(1), 89-98.

Hattie, J. (2012). *Visible learning for teachers: Maximizing impact on learning*. New York, NY, US: Routledge/Taylor & Francis Group.

Hedderich, I. (2007): Körperbehinderung. In: H. Greving (Eds.), *Kompendium der Heilpädagogik* (pp. 76-85). Troisdorf: Bd. 2.

Hedderich, I. (2015). Lehrergesundheit im Kontext schulischer Inklusion Kenntnisstand und Ergebnisse einer explorativen Studie und Perspektiven. *Prävention und Gesundheitsförderung, 11*(1), 34-39.

Hedderich, I. (2016a). Migration – Flucht – Behinderung: Zusammenhänge und Perspektiven. *Sonderpädagogische Förderung heute*, *61*(4), 398-408.

Hedderich, I. (2016b). Teilhabe und Vielfalt: Herausforderungen einer Weltgesellschaft. Beiträge zur Internationalen Sonderpädagogik. In I. Hedderich & R. Zahnd (Eds.), *Teilhabe und Vielfalt: Herausforderungen einer Weltgesellschaft Beiträge zur Internationalen Heil- und Sonderpädagogik* (pp. 17-29). Bad Heilbrunn: Julius Klinkhardt.

Hernandez, J. (2013). Collaboration in Special Education: Its History, Evolution, and Critical Factors Necessary for Successful Implementation. *US-China Education Review*, *3*(6), 480-498.

Higgins, N., MacArthur, J., & Kelly, B. (2009). Including disabled children at school: is it really as simple as 'a, c, d'?. *International Journal of Inclusive Education*, *13*(5), 471-487.

Hildreth, P., & Kimble, C. (2002). The duality of knowledge. *Information Research*, *8*(1). Retrieved from: http://informationr.net/ir/8-1/paper142.html. Accessed on February 15, 2019.

Hollenweger, J. (2008). Cross-national Comparisons of Special Education Classification Systems. In L. Florian & M. McLaughlin (Eds.), *Disability Classification in Education. Issues and Perspectives* (pp. 11-30). Thousand Oaks, CA.: Corwin Press.

Hollenweger, J. (2010). MHADIE's matrix to analyse the functioning of education systems. *Disability and Rehabilitation*, *32*(1), 116-124.

Hollenweger, J. (2011a). Development of an ICF-based eligibility procedure for education in Switzerland. *BMC Public Health*, *11*(4), 1-8.

Hollenweger, J. (2011b). Teachers' ability to assess students for teaching and supporting learning. *Prospects*, *41*, 445-45.

Hollenweger, J., & Moretti, M. (2012). Using the international classification of functioning, disability and health children and youth version in education systems: A new approach to eligibility. *American Journal of Physical Medicine and Rehabilitation*, *91*(13 Suppl. 1), 97-102.

Hollenweger, J. (2014). Special Education today in Switzerland. *Special Education International Perspectives: Practices across the Globe*, *28*, 243-269.

Hollenweger, J., Pantić, N., & Florian, L. (2015). *Tool to upgrade teacher education practices for inclusive education*. Brussels | Strasbourg: European Union | Council of Europe.

Ianes D., Demo H., & Zambotti, F. (2010), *Gli insegnanti e l'integrazione*. Trento: Erickson.

Ianes, D., Demo, H., & Zambotti, F. (2014). Integration and Inclusion in Italy. Towards a Special Pedagogy for Inclusion. *European Journal of Disability Research, 8*, 92-104.

Isaksson, J., Lindqvist, R., & Bergstr, M. E. (2007) School problems or individual shortcomings? A study of individual educational plans in Sweden. *European Journal of Special Needs Education, 22*(1), 75-91.

Jordan-Wilson, A., & Silverman, H. (1991). Teachers' assumptions and beliefs about the delivery of services to exceptional children. *Teacher Education and Special Education*, *14*, 198-206.

Jordan, A., Kircaali-Iftar, G., & Diamond, C. T. P. (1993). Who has a problem, the student or the teacher? Differences in teachers' beliefs about their work with at-risk and integrated exceptional students. *International Journal of Disability, Development and Education*, *40*(1), 45- 62.

Jordan, A., Lindsay, L., & Stanovich, P. J. (1997). Classroom teachers' instructional interactions with students who are exceptional, at risk, and typically achieving. *Remedial and Special Education*, *18*(2), 82-93.

Jordan, A., & Stanovich, P. (2001). Patterns of teacher-student interaction in inclusive elementary classrooms and correlates with student self-concept. *International Journal of Disability, Development and Education*, *48*(1), 33-52.

Jordan, A., & Stanovich, P. (2004). The beliefs and practices of Canadian teachers about including students with special education needs in their regular elementary classrooms. *Exceptionality Education Canada*, *14*(2&3), 25-46.

Jordan, A., Schwartz, E., & McGhie-Richmond, D. (2009). Preparing teachers for inclusive classrooms. *Teaching and Teacher Education* 25, 535-542.

Kauffmann, J. M., Bantz, B., & McCullough, J. (2002). Separate and better: A special public school class for students with emotional and behavioral disorders. *Exceptionality*, *10*(3), 149-170.

Kauffman, J. M., McGee, K., & Brigham, M. (2004). Enabling or disabling? Observations on changes in special education. *Phi Delta Kappan, 85*(8), 613-620.

Lasky, S. (2005). A socio-cultural approach to understanding teacher identity, agency & professional vulnerability in the context of secondary school reform. *Teaching & Teacher Education*, *21*, 899-916.

Legge 30 marzo 1971, n. 118. *Conversione in legge del D.L. 30 gennaio 1971, n. 5 e nuove norme in favore dei mutilati ed invalidi civili, (1971)*. Retrieved from http://www.handylex.org/stato/l300371.shtml. Accessed on February 15, 2019.

Legge 5 febbraio 1992, n. 104. *Legge-quadro per l'assistenza, l'integrazione sociale e i diritti delle persone handicappate*, (1992). Retrieved from http://www.handylex.org/stato/l050292.shtml. Accessed on February 15, 2019.

Legge 5 giugno 1990, n.148. *Riforma dell'ordinamento della scuola elementare*, (1990). Retrieved from http://www.gazzettaufficiale.it/atto/serie_generale/caricaDettaglioAtto/originario?atto.dataPubblicazioneGazzetta=1990-06-15&atto.codiceRedazionale=090G0183. Accessed on February 15, 2019.

Legge 30 ottobre 2008, n. 169. *Conversione in legge, con modificazioni, del decreto-legge 1° settembre 2008, n. 137, recante disposizioni urgenti in materia di istruzione e università.* (2008). Retrieved from: http://www.camera.it/parlam/leggi/08169l.htm. Accessed on February 15, 2019.

Legge 8 ottobre 2010, n. 170. *Nuove norme in materia di disturbi specifici di apprendimento in ambito scolastico*, (2010). Retrieved from http://www.gazzettaufficiale.it/gunewsletter/dettaglio.jsp?service=1&datagu=2010-10-18&task=dettaglio&numgu=244&redaz=010G0192&tmstp=1288002517919. Accessed on February 15, 2019.

Legge sulla pedagogia speciale (del 15 dicembre 2011). (2011). Retrieved from https://m3.ti.ch/CAN/RLeggi/public/index.php/raccolta-leggi/legge/num/212. Accessed on February 15, 2019.

Lee-Tarver, A., 2006. Are Individualized Educational Plans a Good Thing? A Survey of Teachers' Perceptions of the Utility of IEPs in Regular Education Settings. *Journal of Instructional Psychology*, *33*(4), 263-272.

Leonardi, M., Bickenbach, J., Ustun, B., Kostanjsek, N., & Chatterji, S. (2006). The definition of disability: What is in a name?. *The Lancet 368*(9543),1219-21.

McCarthy, P. J, Brennan, L., & Vecchiarello, K. (2011). Parent – School Communication in the Inclusive Classroom: A Comprehensive Model of Collaboration in Education. *International Journal of Humanities and Social Science*, *1*(15), 55-60.

Ministero dell'Istruzione, dell'Università e della Ricerca Dipartimento per l'Istruzione Direzione Generale per lo Studente, l'Integrazione, la Partecipazione e la Comunicazione. (2011).
Linee guida per il diritto allo studio degli alunni e degli studenti con disturbi specifici di apprendimento. Retrieved from http://www.disabili.unige.it/wp-content/uploads/2011/11/linee_guida_sui_dsa_12luglio2011.pdf. Accessed on February 15, 2019.

Moretti M., Alves I., & Maxwell, G. (2012). A systematic literature review of the situation of the International Classification of Functioning, Disability, and Health and the International Classification of Functioning, Disability, and Health, Children and Youth Version in education: a useful tool or a flight of fancy?. *American Journal of Physical Medicine & Rehabilitation*, *2*(91), 3-117.

Morgado, J. C., & Sousa, F. (2010). Teacher evaluation, curricular autonomy and professional development: trends and tensions in the Portuguese educational policy. *Journal of Education Policy*, *25*(3), 369-384.

Norwich, B. (2008a). *Dilemmas of difference, inclusion and disability: international perspectives and future directions*. London: Routledge.

Norwich, B. (2008b). Dilemmas of difference, inclusion and disability: international perspectives on placement. *European Journal of Special Needs Education*, *23*, 287-304.

Norwich, B. (2009). Dilemmas of difference and the identification of special educational needs/disability: international perspectives. *British Educational Research Journal*, *35*(3), 447-467.

Norwich, B., (2010). Dilemmas of difference, curriculum and disability: international perspectives. *Comparative Education*, *46*(2), 113-135.

OECD. (2004). *Equity in Education - Students with Disabilities, Difficulties, and Disadvantages: Statistics and Indicators*. Paris, France: OECD.

OECD. (2005a). *Students with disabilities, learning difficulties and disadvantages: statistics and indicators.* Paris, France: OECD.

OECD. (2005b). *Teachers matter: attracting, developing and retaining effective teachers.* Paris, France: OECD.

OECD. (2010). PISA 2009 results: *Overcoming social background - Equity in learning opportunities and outcomes (Vol. 2)*. Paris, France: OECD.

OECD. (2013). *Teaching and Learning International Survey.* Paris, France: OECD.

Palmer, D. (2006). Sources of self-efficacy in a science methods course for primary teacher education students. *Research in Science Education*, *36*, 337-353.

Patton, M.Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.

Pavone M. (2007), La via italiana all'integrazione scolastica degli allievi disabili. Dati quantitativi e qualitativi. In A. Canevaro (a cura di), *L'integrazione scolastica degli alunni con disabilità (*159-183). Trento: Erickson.

Poppes, P., Vlaskamp, C., & De Geeter, K. I., (2002). The importance of setting goals: the effect of instruction and training on the technical and intrinsic quality of goals, *European Journal of Special Needs Education, 17*(3), 241-250.

Prozesky, D. R. (2000). Communication and effective teaching. *Community Eye Health*, *13*(35), 44-45.

Ravich, D. (2010). *The Death and Life of the Great American School System: How Testing and Choice Are Undermining Education*. New York: Basic Books.

Rivkin, S. G., Hanushek, E., & Kain, J. F. (2005). Teachers, schools and academic achievement. *Econometrica*, *73*(2), 417-458.

Rondanini, L., & Capaldo, N. (2013). *Il sistema italiano di istruzione e formazione. Memoria, progetto e nuovi compiti*. Trento: Erickson.

Rouse, M. (2008) Developing inclusive practice: a role for teachers and teacher education? *Education in the North*, *16*, 6-11.

Schalock, R. L., Borthwick-Duffy, S. A., Bradley, V. J., Buntinx, W. H. E., Coulter, D. L., Craig, E. M., et al. (2010). *Intellectual disability: Definition, classification, and systems of supports*. Washington, DC: American Association on Intellectual and Developmental Disabilities.

Scruggs, T. E., Mastropieri, M. A., & McDuffie, K. A. (2007). Co-teaching in inclusive classrooms: A metasynthesis of qualitative research. *Exceptional Children*, *47*, 392-416.

Simeonsson, R. J., Carlson, D., Huntington, G., McMillen, J., & Brent, L. (2002). Students with disabilities: a national survey of participation in school activities. *Disability and Rehabilitation*, *20-23*(2), 49-63.

Soresi, S., Nota, L., & Wehmeyer, M.L. (2011). Community involvement in promoting inclusion, participation and self-determination. *International Journal of Inclusive Education, 15*(1), 15-28.

Stanovich, P. J., & Jordan, A. (1998). Canadian Teachers' and Principals' Beliefs about Inclusive Education as Predictors of Effective Teaching in Heterogeneous Classrooms. *The Elementary School Journal*, *98*(3), 221-238.

Tamatea, L. (2005). The Dakar framework: Constructing and deconstructing the global neo-liberal matrix. *Globalisation, Societies and Education, 3*(3), 311-34.

Terzi, L. (2007). Capability and Educational Equality: The Just Distribution of Resources to Students with Disabilities and Special Educational Needs. *Journal of Philosophy of Education*, *41*(4), 757-774.

Tschannen-Moran, M., Woolfolk Hoy, A., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research*, *68*, 202-248.

Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, *17*(7), 783-805.

Tschannen-Moran, M., & Woolfolk Hoy, A. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. Teaching and Teacher Education, *23*, 944-956.

Tschannen-Moran, M., & Johnson, D. (2011). Exploring literacy teachers' self-efficacy beliefs: Potential sources at play. Teaching and Teacher Education, *27*, 751-761.

UNESCO. (1994). *The Salamanca Statement and Framework for Action on Special Needs Education*. Paris: UNESCO.

UNESCO. (2000). *World Education Forum. The Dakar Framework for Action: Education for All – Meeting our Collective Commitments*. Paris: UNESCO.

UNESCO. (2009). *Policy Guidelines on Inclusion in Education*. Paris: UNESCO.

United Nations. (2006). *UN Convention on the rights of persons with disabilities*. New York, NY: United Nations.

Vehmas, S. (2010). Special needs: a philosophical analysis. *International Journal of Inclusive Education, 14*(1), 87-96.

Villanueva, M. G., Taylor, J., Therrien, W. & Hand, B. (2012). Science education for students with special needs. *Studies in Science Education*, *48*(2), 187-215.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Wedell, K. (2008). Evolving Dilemmas About categorization. In L. Florian & M. McLaughlin (Eds.), *Disability Classification in Education. Issues and Perspectives* (pp. 47-64). Thousand Oaks, CA.: Corwin Press.

Wilson, J. 2002. Defining special needs. *European Journal of Special Needs Education*, *17*, 61-66.

World Health Organization. (2001). *International Classification of Functioning, Disability and Health (ICF)*. Geneva: World Health Organization.

World Health Organization. (2007). *International Classification of Functioning, Disability, and Health: Children & Youth version (ICF-CY)*. Geneva: World Health Organization.

APPENDICES

APPENDIX 1, ADAPTED VERSION OF THE PATHOGNOMONIC-INTERVENTIONIST INTERVIEW (JORDAN, SCHWARTZ, & MCGHIE-RICHMOND, 2009; JORDAN & STANOVICH, 2001; STANOVICH & JORDAN, 1998)

Informazioni di presentazione prima dell'intervista:

- Chi siete
- Breve presentazione del progetto (obiettivi, strumenti, campionamento, territorio, partners)
- Informazioni sulla privacy

Pathognomonic-Interventionist interview

La Pathognomonic-Interventionist interview è un'intervista narrativa semi-strutturata. L'intervista viene registrata e trascritta per essere poi codificata. L'intervista è divisa in 2 parti, bambino non certificato e bambino certificato

Informazioni generali

Data:

Intervistatore:

Maestro/a:

Sesso del maestro/a:

Età del maestro/a:

Curriculum di studi:

Anni, mesi, giorni di esperienza:

Da quanto tempo ha lavorato con il bambino/a?

Classe:

Composizione del team di lavoro del gruppo classe:

Scuola:

Composizione del gruppo classe: (N di alunni, n di stranieri, n di alunni certificate, n di alunni non certificati che ne avrebbero bisogno)

Città:

Area della scuola: urbana, suburbana, rurale

B. Bambini identificati secondo la legge 104/o assicurazione invalidità metti il numero)

1. C'è qualche bambino nella sua classe che è stato identificato e certificato secondo la Legge 104?

1.1 Nome (usiamo un nickname)
1.1 Sesso, età?
1.3 Come è stato classificato? (ad esempio, Autismo, può leggerci la diagnosi funzionale che ha portato alla certificazione di disabilità?)
1.4 Quali sono le materie in cui ha dei problemi o le aree in cui ha particolarmente bisogno del sostegno?
1.5 Quante ore al giorno/alla settimana è nella classe regolare e quante nella classe di sostegno? (in che materie è nella classe regolare e in quali è nella classe di sostegno ?), ore totali del sostegno

2 Come vede il suo ruolo con questo bambino ?
2.1 Che obiettivi e che aspettative (generali e più specifici) ha per loro e per se stesso?
2.2 Ha cercato delle informazioni per far fronte ai problemi del bambino? Se sì quali informazioni? Dove? Puo dirmi in modo preciso che fonti ha utilizzato (per es: persone, siti internet, osservazione, ASL, personale medico, altre insegnanti etc etc)?
2.3 Queste informazioni sono state utili? Cosa ha fatto dopo che ha ottenuto le informazioni?

3 Con chi ha lavorato per far fronte ai bisogni del bambino?
3.1 Come ha lavorato/lavora con le altri insegnanti curriculare?
3.1 Con il consiglio di classe ?
3.2 Altri?
3.4 Chi stabilisce gli obiettivi a medio e lungo termine?

4. Come lavora con il suo team?
4.1 Partecipa a incontri che riguardano il bambino?
(se sì con quali altri membri del consiglio di classe? qualè il suo ruolo? la sua motivazione nel partecipare, è soddisfatto?)

4.2 Con che frequenza vi incontrate?
4.3 Può spiegarmi i ruoli che avete nel lavoro con il bambino e nei consigli di classe?
4.4 Come sono stati decisi gli step futuri e gli obbiettivi che riguardano il bambino?
4.5 Le informazioni che riguardano il bambino vengono condivise? Come avviene la condivisione e coordinazione delle informazioni?

5. Che cosa ne pensa della collaborazione con gli altri membri del consiglio di classe?

6. Ha fatto qualcosa per adattare il contesto scolastico al bambino? Nello specifico…
6.1 Organizzazione della classe?
6.2 Ha cercato di individualizzare il programma di studio?
6.3 Materiali personalizzati e adattati?
6.4 Tecniche di insegnamento?

6.5 Che strumenti usa per stabilire gli obiettivi a medio e lungo termine e il supporto di cui ha bisogno il bambino? (ad es. il PEI, un diario…)
6.6 Ci sono delle regole, indicazioni nazionali, regionali, locali, scolastiche per compilare il PEI e gli obiettivi a medio e lungo termine?
6.7 Chi è responsabile della stesura del PEI e degli obiettivi a medio e lungo termine? Chi partecipa alla stesura del PEI e degli obiettivi a medio e lungo termine ?
6.8 Esiste una suddivisione dei compiti e una divisione dei ruoli quando vengono stilati gli obiettivi a medio e lungo termine e il PEI ?

7. Per quanto riguarda invece la valutazione e il monitoraggio del percorso scolastico che metodo usa?
8.1 Con che frequenza fa delle valutazioni sull'andamento scolastico dell'alunno?
7.2 Come valuterebbe il suo lavoro con lui?

8. Cosa fa per aiutare il bambino nell'apprendimento scolastico?
8.1 è un lavoro che svolge da solo?
8.2 O con i suoi colleghi?

9 Quando è avvenuto il primo contatto con i genitori del bambino?
9.1 Quanto spesso è in contato con loro?
9.2 Come cerca/ha cercato di coinvolgerli?
9.3 Per quanto riguarda invece il riferire ai genitori l'andamento scolastico del figlio? Quando? Come? Chi lo fa?

APPENDIX 2, INTERVIEW SCALE

SISTEMA DI CODIFICA MAESTRA VS BAMBINO IDENTIFICATO

Modelli di pensiero che guidano il lavoro della maestra
Item 4
1 La maestra di sostegno vede le difficoltà scolastiche come una caratteristica fissa e immutabile dello studente, e aspetta che siano le altre insegnanti o l'assistente a prendersi cura di lui e dei suoi problemi
2
3 La maestra di sostegno considera il problema dello studente come il risultato dell'interazione dello studente con il suo ambiente, e si considera un importante fattore ambientale che può incidere nell'apprendimento scolastico dell'alunno
4 N/A Non/applicabile

Item 5
1 La maestra di sostegno non cerca nessuna informazione per capire le problematiche e le potenzialità dello studente e si basa solo sulla diagnosi e sul profilo funzionale
2
3 La maestra di sostegno cerca delle informazioni (osserva, chiede all'assistente, alle altre maestre, ai genitori, al preside etc etc) per cercare di capire le potenzialità e i limiti di apprendimento dello studente al fine di elaborare una proposta didattica adeguata alle capacità dello studente stesso
4 N/A

Programmazione
A. **Obiettivi**
Item 7
1 La maestra di sostegno non monitora/controlla i progressi dello studente al fine di adattare il programma scolastico alle sue capacità ma rispetta questo onere solo per questioni burocratiche
2
3 La maestra monitora/controlla i progressi dello studente al fine di adattare, migliorare il programma scolastico. I progressi dello studente sono regolarmente controllati durante l'anno.
4 N/A

Item 8

1 La maestra non si preoccupa di adattare gli obiettivi standard, (che vanno stilati per l'intera classe) e il programma scolastico ai singoli studenti

2

3 La maestra adatta il programma scolastico e gli obiettivi in base alla capacità degli studenti e si aspetta che gli studenti raggiungano gli obiettivi a seconda delle loro capacità

4 N/A

Activity theory

Item 21: strumenti

1 Non c'è nessuno strumento ufficiale per stilare gli obiettivi a medio e lungo termine (chiedere informazioni sul PEI)

2

3 Ci sono degli strumenti per stilare gli obiettivi a medio e lungo termine

4 N/A

Item 22: regole

1 Non ci sono regole per stilare gli obbiettivi a medio e lungo termine e il PEI

2

3 Ci sono regole per stilare gli obbiettivi a medio e lungo termine e il PEI

4 N/A

Item 23: team di lavoro

→ Descrizione qualitative dei membri del gruppo classe

Item 24: divisione del lavoro

1 Non c'è nessuna collaborazione per la stesura del PEI e degli obbiettivi a medio e lungo termine

2

3 C'è collaborazione nella stesura del PEI e degli obbiettivi a medio e lungo termine

4 N/A

B. Adattare il programma scolastico, la classe e le tecniche di insegnamento

Item 9

1 La maestra di sostegno non fa nulla per adattare il setting della classe all'alunno (ad es. disposizione dei banchi)

2

3 La maestra di sostegno adatta il setting scolastico all'alunno (ad es. disposizione dei banchi)

4 N/A

Item 10

1 La maestra di sostegno non adatta le modalità e le tecniche di insegnamento (ad esempio programma scolastico individualizzato, lavori in gruppi) al fine di venire incontro ai bisogni dello studente

2

3 La maestra di sostegno adatta le modalità e le tecniche di insegnamento (ad esempio programma scolastico individualizzato, lavori in gruppi) al fine di venire incontro ai bisogni dello studente

4 N/A

Valutazione dell'andamento scolastico dell'alunno

Item 13

1La maestra di sostegno valuta l'andamento scolastico dell'alunno solo per onere: per incontri o consigli di classe, o quando viene richiesto (pagelle, pagelline, consigli di classe)

2

3 La maestra di sostegno valuta l'andamento scolastico dell'alunno regolarmente

4 N/A

Comunicazione e collaborazione con il gruppo classe

Item 15

1La maestra di sostegno non lavora in modo cooperativo con le altre maestre e con l'assistente per fare in modo che il programma scolastico venga adattato ai bambini con disabilità o non certificati

2

3 La maestra di sostegno lavora in modo cooperativo con le altre maestre e con l'assistente per fare in modo che il programma scolastico venga adattato ai bambini con disabilità o non certificati

4 N/A

Item 17

1La maestra di sostegno non "riporta" agli altri membri del team i progressi dello studente e parte dal presupposto che ognuno è responsabile della propria parte di lavoro

2

3 Le maestre si incontrano di frequente per informarsi sugli sviluppi dello studente

4 N/A

Comunicazione e collaborazione con i genitori

Item 19

1La maestra di sostegno contatta i genitori solo se i bambini (identificati dalla 104) mostrano dei gravi problemi

2

3 La maestra di sostegno ha uno scambio di informazioni frequente con i genitori

4 N/A

Item 20

1 La maestra di sostegno quando si relaziona con i genitori del bambino fa riferimento solo al proprio lavoro con il bambino, non c'è una coordinazione tra le diverse maestre per riportare ai genitori l'andamento scolastico del figlio

2

3 C'è un lavoro di coordinazione tra le diverse maestre per riportare ai genitori l'andamento scolastico del figlio

4 N/A

APPENDIX 3, TEACHER SENSE OF EFFICACY SCALE (TSE) LONG FORM QUESTIONNAIRE DEVELOPED BY TSCHANNEN-MORAN & WOOLFOLK HOY (2001, 2007)

PH Zürich

QUESTIONARIO

Nickname:

Istruzioni: la invitiamo ad esprimere il suo pensiero in ognuna di queste domande segnando con una crocetta una delle nove possibilità della scala che va da «per nulla» a «decisamente si»

Per favore risponda ad ognuna di queste domande tenendo in considerazione sia le sue capacità personali che le risorse che ha a disposizione

	1 Per nulla	2	3 Poco	4	5 Abbastanza	6	7 Molto	8	9 Decisamente si
1 In che misura riesce a trovare un canale comunicativo con gli studenti che considera problematici?									
2 Quanto riesce ad aiutare i suoi studenti a pensare in modo critico?									
3 Quanto riesce a tenere sotto controllo comportamenti distruttivi all'interno del gruppo classe?									

	1 Per nulla	2	3 Poco	4	5 Abbastanza	6	7 Molto	8	9 Decisamente si
4 Quanto riesce a motivare studenti che mostrano uno scarso interesse per le attività scolastiche?									
5 Quanto le aspettative che ha sui suoi studenti si rivelano poi corrette?									
6 Quanto riesce ad aiutare gli studenti a credere che possono andare bene a scuola?									
7 Quanto riesce a dare risposte soddisfacenti alle domande difficili che vengono poste dai suoi studenti?									
8 Quanto riesce a fare in modo che le attività che svolge durante le sue ore di lezione vengano eseguite senza grandi impedimenti?									
9 Quanto riesce a fare per infondere nei suoi studenti il valore dell'apprendimento?									
10 Quanto riesce a capire se gli studenti comprendono quello che ha loro insegnato?									
11 Quanto riesce a portare i suoi studenti a fare delle domande intelligenti?									
12 Quanto riesce a incoraggiare la creatività nei suoi studenti?									
13 Quanto riesce a far rispettare le regole della classe ai suoi studenti?									
14 Quanto riesce a migliorare la comprensione di uno studente che ha delle lacune?									
15 Quanto riesce a tenere sotto controllo uno studente che è incontenibile e chiassoso?									

	1 Per nulla	2	3 Poco	4	5 Abbastanza	6	7 Molto	8	9 Decisamente si
16 Quanto riesce a gestire l'intero gruppo classe?									
17 Quanto riesce ad adattare le sue lezioni alle capacità dei singoli studenti?									
18 In che misura riesce ad utilizzare delle strategie di valutazione diversificate e personalizzate?									
19 Quanto riesce a fare in modo che i problemi di alcuni studenti o che studenti problematici non incidano negativamente sulle lezioni?									
20 Quanto riesce a portare degli esempi o spiegazioni alternative quando percepisce che gli studenti fanno fatica a comprendere?									
21 Quanto riesce a contenere studenti insolenti e provocatori?									
22 Quanto riesce a fare in modo che le famiglie partecipino in modo supportivo e cooperativo nel percorso scolastico del figlio?									
23 Quanto riesce ad implementare strategie di insegnamento alternative nella sua classe?									
24 Quanto riesce a creare delle opportunità adeguate di apprendimento ai suoi studenti più bravi e meritevoli?									

LA RINGRAZIAMO PER LA PREZIOSA COLLABORAZIONE!!